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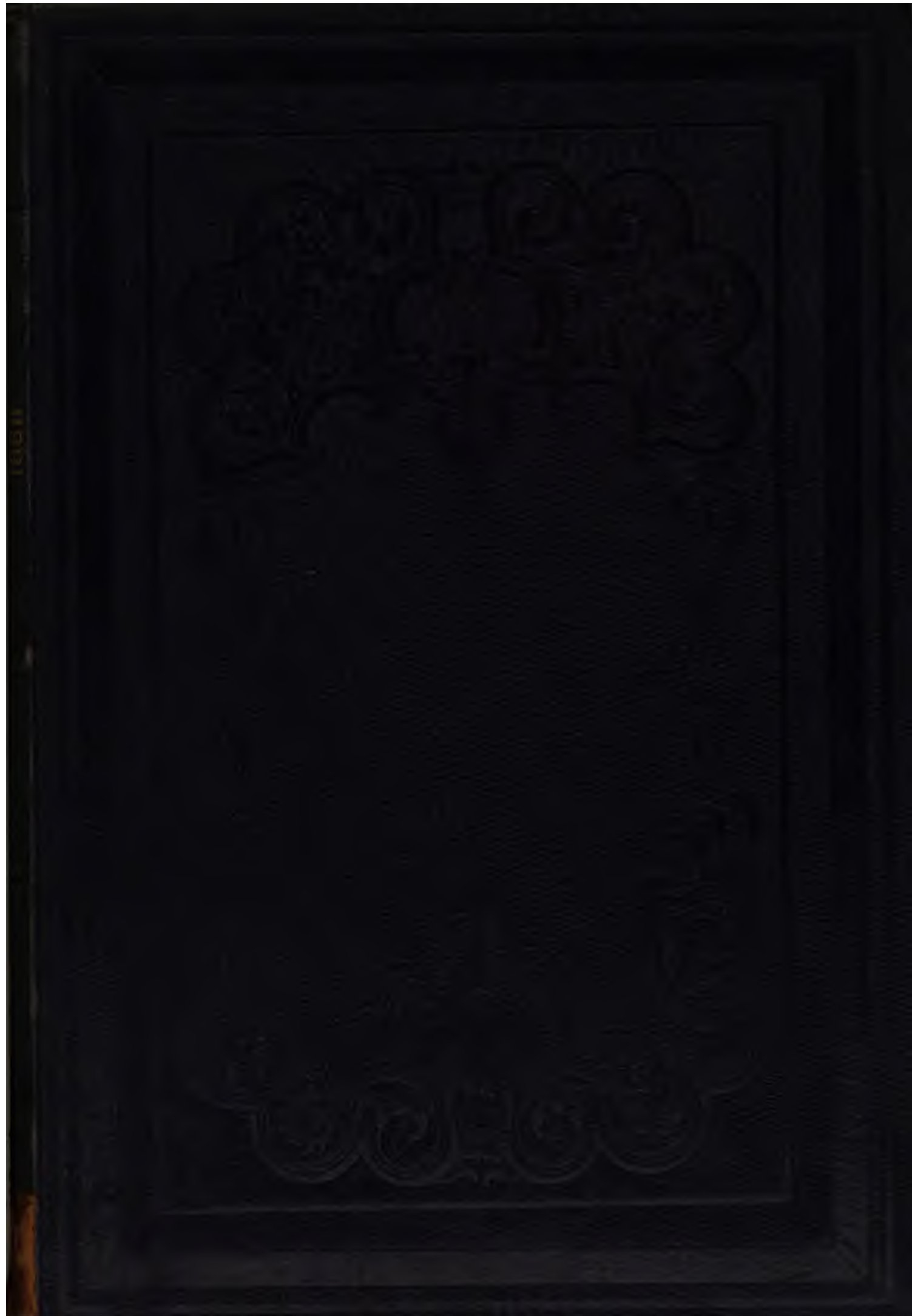
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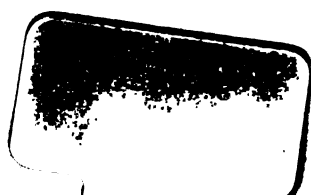
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15 & 16 VICTORIÆ, Cap. 83. Sec. XXXII.



ALPHABETICAL INDEX  
OF  
PATENTEEs AND APPLICANTS FOR PATENTS  
OF INVENTION,  
For the Year 1868.

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Printed and Published by Order of the Commissioners of Patents,

UNDER THE

ACT of 15 & 16 VICTORIÆ, Cap. 83. Sec. XXXII.

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## THEORY OF THE EARTH

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# ALPHABETICAL INDEX

OF

## PATENTEES AND APPLICANTS FOR PATENTS OF INVENTION,

FOR THE YEAR 1868.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
<b>A.</b>			
ABBOTT, OTHO GILES - -	3416	10th Nov. 1868	An improved apparatus for the distribution of sewage water and other fluids.
ABBOTT, THOMAS - -	1090	31st March 1868	Taps, cocks or valves for water, gas, steam or other liquids.
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ABEL, CHARLES DENTON -	122	14th Jan. 1868	Treatment of woven fabrics for improving the appearance thereof. (Communicated by Eugène Paraf-Javal and Mathias Paraf-Javal.)
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ABEL, CHARLES DENTON -	993	24th March 1868	Watches, chronometers and clocks. (Communicated by Clement Eschenry.)
ABEL, CHARLES DENTON -	1124	3rd April 1868	A new or improved process and apparatus for refining camphor. (Communicated by Charles Emile Perret.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
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ABEL, CHARLES DENTON -	1278	20th April 1868	Treatment of textile fabrics for consolidating them and rendering them impermeable. (Communicated by Pierre Armand Neuman.)
ABEL, CHARLES DENTON -	1424	1st May 1868	The production of a new or improved colouring matter from aniline. (Communicated by Benoit Bloch.)
ABEL, CHARLES DENTON -	1463	5th May 1868	Axle-boxes for the rolling stock of railways. (Communicated by Maximilian Schmid Von Schmidsfelden.)
ABEL, CHARLES DENTON -	1687	22nd May 1868	Means and apparatus for drawing cop and other threads through shuttle holes and eyes. (Communicated by Charles Von Hartmann.)
ABEL, CHARLES DENTON -	1799	1st June 1868	Manufacture of alum and other aluminous compounds. (Communicated by Henry Pemberton.)
ABEL, CHARLES DENTON -	1819	3rd June 1868	Production of iodine. (Communicated by Jules Toché.)
ABEL, CHARLES DENTON -	1844	5th June 1868	A new or improved stopping motion for spinning machinery. (Communicated by Amand Boutemy.)
ABEL, CHARLES DENTON -	2052	26th June 1868	New or improved machinery or apparatus for cleansing or washing bottles. (Communicated by Adolphe Cointreau.)
ABEL, CHARLES DENTON -	2161	8th July 1868	Ornamenting textile fabrics, feathers, artificial flowers and such like articles. (Communicated by Louis Larrüe.)
ABEL, CHARLES DENTON -	2340	25th July 1868	A new or improved process for separating the zinc from the argentiferous alloys obtained in the separation of silver from argentiferous lead by means of zinc, and improvements in the furnaces employed for that purpose. (Communicated by Hilarion Roux.)
ABEL, CHARLES DENTON -	2548	15th Aug. 1868	Production of brown colouring matters for dyeing and printing. (Communicated by Jules Gabriel Alfred Gros.)
ABEL, CHARLES DENTON -	2680	15th Sept. 1868	Means and apparatus for securing buttons to articles of dress. (Communicated by Jacob Rothberger.)
ABEL, CHARLES DENTON -	2968	28th Sept. 1868	Improvements in converting cast iron into wrought iron, and in uniting oxides and fluxes with molten cast iron. (Communicated by Thomas Shoenberger Blair.)
ABEL, CHARLES DENTON -	3120	12th Oct. 1868	Screw propellers. (Communicated by Adolphe Aubert.)
ABEL, CHARLES DENTON -	3234	22nd Oct. 1868	Improvements in the construction of railways and in the rolling stock and structures therefor. (Communicated by Baron Ludwig Almos Lo Presti.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ABEL, CHARLES DENTON -	3515	19th Nov. 1868	Improvements in the manufacture of phosphorus and amorphous phosphorus, and in furnaces and apparatus employed for that purpose. (Communicated by Claude Brison.)
ABEL, CHARLES DENTON -	3539	21st Nov. 1868	A combined tobacco pouch and cigarette former. (Communicated by Felix Mazet.)
ABEL, CHARLES DENTON -	3565	23rd Nov. 1868	Improvements in converting cast iron into wrought iron, and in uniting oxides, fluxes and other substances with molten cast iron. (Communicated by Thomas Schoenberger Blair, Adolphus Guzman, Francis Ellershausen, and Augustus E. Stayner.)
ABEL, CHARLES DENTON -	3631	28th Nov. 1868	Manufacture of steel. (Communicated by Thomas Schoenberger Blair.)
ABEL, CHARLES DENTON -	3934	24th Dec. 1868	Rolling mills. (Communicated by Charles Mongin.)
ABEL, CHARLES DENTON -	3952	29th Dec. 1868	Improvements in the manufacture of wrought metal pipes and in the apparatus employed for that purpose. (Communicated by James Beach Clow.)
ABEL, FREDERICK AUGUSTUS -	3115	10th Oct. 1868	Mode of and apparatus for firing explosive compounds.
ABELSETH, CHRISTOPHER [NICOLAY.	2745	5th Sept. 1868	Apparatus for manufacturing gas. (Communicated by James Stratton.)
ABLETT, THOMAS MARK -	601	22nd Feb. 1868	Waist springs for boots and shoes.
ABRAHAM, JOHN - - -	952	20th March 1868	Central fire cartridges for breech-loading fire-arms.
ABRAHAM, JOHN - - -	3709	5th Dec. 1868	Central-fire cartridges [for breech-loading fire-arms and ordnance.
ADAM, WILLIAM M <sup>c</sup> - -	2999	28th Sept. 1868	Improvements in arrangements or apparatus for facilitating omnibus traffic, the said improvements being also applicable otherwise and relating to tramways, wheels and carriages.
ADAMES, CHARLES HENRY -	334	31st Jan. 1868	Manufacture of portable metal buckets or pails and tubs.
ADAMS, JAMES ALISON -	1611	16th May 1868	Cooking ranges.
ADAMS, JOHN - - -	663	27th Feb. 1868	An improved stopper for bottles.
ADAMS, JOHN - - -	1724	26th May 1868	Machinery for washing or cleansing casks or barrels.
ADAMS, JOHN - - -	2708	2nd Sept. 1868	An improved stopper for bottles for containing aerated or gaseous liquids.
ADAMS, JOHN - - -	2775	9th Sept. 1868	Apparatus for supplying the syrup in the manufacture of aerated beverages and other liquids, also applicable to other purposes.
ADAMS, JOSEPH - - -	3312	29th Oct. 1868	Manufacture of bricks and tiles.
ADAMS, JOSEPH H. - -	1109	1st April 1868	Cotton gins. (Patented by Robert Joseph Morison.)
ADAMS, OTIS - - -	2231	15th July 1868	A new or improved tool or chisel for mortising machines. (Patented by Robert Chamberlin.)
ADAMS, WILLIAM - - -	3312	29th Oct. 1868	Manufacture of bricks and tiles.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ADAMS, WILLIAM BRIDGES -	444	10th Feb. 1868	Heating and welding metals in various forms, applicable to forts, vessels buildings and other structures and uses.
ADAMSON, WILLIAM BENNET -	1884	9th June 1868	An improved method of manufacturing tools for hewing or cutting stone, slate, marble and other substances, and improvements in the compounds or materials of which such tools are made.
ADAMSON, WILLIAM BENNET -	2206	13th July 1868	Manufacture or casting of tools.
ADAMSON, WILLIAM BENNET -	2207	13th July 1868	Manufacture of iron and other metallic substances.
ADAMSON, WILLIAM BENNET -	3330	31st Oct. 1868	Improvements in the manufacture of iron, steel and other metallic substances, such improvements being also applicable to the manufacture of tools made of the same materials.
ADCOCK, JOSEPH SPENCER -	2640	25th Aug. 1868	Account books.
ADDIS, WILLIAM JUDSON -	1088	28th March 1868	Permanent way of railways.
ADDIS, WILLIAM JUDSON -	1850	5th June 1868	Improvements in carts, parts of which improvements are applicable to other vehicles.
ADIE, PATRICK - - -	1053	27th March 1868	Means and apparatus for shearing sheep and clipping horses and other animals.
ADKINS, WILLIAM - - -	1739	26th May 1868	Certain improvements in stocks and dies for screwing bolts and other like articles.
AGER, NATHAN - - -	1271	18th April 1868	Fastenings suitable for window sashes and for other uses.
AINSLIE, WILLIAM GEORGE -	3698	4th Dec. 1868	Means for drying peat, peat compounds and other materials.
AITKEN, HENRY - - -	164	17th Jan. 1868	Improvements in treating iron ores or ironstones for the purpose of effecting economy in the obtainment of iron and other products therefrom.
AITKEN, HENRY - - -	352	1st Feb. 1868	Improvements in treating iron ores or ironstones for the purpose of obtaining products therefrom, and in the means employed therefor, also improvements in the ovens or "draw kilns" for carbonising iron ores or ironstones.
AITKEN, HENRY - - -	2711	2nd Sept. 1868	Improvements in treating grain, pulse, hay, straw and root crops, for the purpose of speedily drying and bringing the same into sound condition, and in the means employed therefor.
AITKEN, HENRY - - -	3471	14th Nov. 1868	Treating iron ores or iron stones.
AITKEN, RUSSELL - - -	2954	26th Sept. 1868	Permanent way of railways. (Patented by John Henry Johnson.)
AKERS, THOMAS PETER - -	385	4th Feb. 1868	Improvements applicable to steam-boilers for automatically sounding an alarm at the extremes of high and low water, also for automatically sounding an alarm when the steam in the boilers exceeds a given pressure. (Patented by William Edward Newton.)
AKRILL, CHARLES - - -	3232	22nd Oct. 1868	Apparatus for burning creosote and other combustible liquids.

[Ala]

## AND APPLICANTS FOR PATENTS OF INVENTION.

[Alt]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ALAND, HENRY - - -	323	30th Jan. 1868	Improvements in rotary blowing fans for producing blast for furnaces and other purposes, which improvements may also be applied to air and gas exhausters.
ALAUZET, PIERRE - - -	301	28th Jan. 1868	Lithographic printing machines. (Patented by John Henry Johnson.)
ALBARET, AUGUSTE BERNARD	985	23rd March 1868	Thrashing machinery. (Patented by Alfred Vincent Newton.)
ALBINI, AUGUSTO - - -	34	4th Jan. 1868	Cartridge belts or pouches.
ALBINI, AUGUSTO - - -	2135	4th July 1868	Mariners' or ships' compasses.
ALBINI AUGUSTO, - - -	2571	17th Aug. 1868	Electro-magnets.
ALCAN, MICHEL - - -	1298	21st April 1868	An improved apparatus for removing the cotton from cotton pods. (Patented by Samuel Dreyfous.)
ALDER, GEORGE - - -	2098	30th June 1868	Screw propellers for propelling vessels.
ALEKAN, FELIX - - -	128	15th Jan. 1868	Studs for shirt fronts and other similar purposes.
ALEKAN, ISIDORE - - -	128	15th Jan. 1868	Studs for shirt fronts and other similar purposes.
ALEXANDER, ANDREW - -	3107	2nd July 1868	Improvements in carriages and locomotive engines for working on steep inclines and sharp curves, but some of them applicable to locomotive engines generally.
ALEXANDER, JOHN - - -	3667	2nd Dec. 1868	Means of and apparatus for signalling on railways.
ALEXANDER, WILLIAM - -	1756	28th May 1868	Arrangement of mechanism for applying auxiliary power to sailing ships.
ALLDAY, WILLIAM - - -	1613	16th May 1868	Forge and other bellows.
ALLEN, EDWARD ELLIS - -	1673	21st May 1868	Mode of packing, covering or making up materials wound upon spools or in the form of bundles or skeins.
ALLEN, JOHN - - -	1085	26th March 1868	Pistons.
ALLEN, STILLMAN BOYD -	1557	13th May 1868	An improvement in rasps. (Communicated by Hiram Nickerson.)
ALLEN, WILLIAM - - -	1088	31st March 1868	Diminishing valves and steam traps for steam pipes.
ALLIBON, GEORGE - - -	246	23rd Jan. 1868	Steam-boilers.
ALLIX, GEORGE - - -	3320	30th Oct. 1868	Apparatus for raising, lowering and disengaging ships' boats.
ALLMARLE, JOSEPH - -	3795	14th Dec. 1868	An improved pocket tobacco cutting machine.
ALLUM, CHARLES OCTAVIUS [Mc]	2793	10th Sept. 1868	Utilization of the alkaline, neutral and saline salts contained in the mother-liquors or weak alkali resulting from the manufacture of crystals of soda or other alkaline salts.
ALMOND, WILLIAM JOHN -	2593	20th Aug. 1868	An improved mode of preparing threads of cotton, silk, wool or any fibrous substance, for the market.
ALSTON, EDWARD - - -	374	4th Feb. 1868	Moveable fire bars.
ALSTON, RICHARD - - -	374	4th Feb. 1868	Moveable fire bars.
ALTHAM, THOMAS - - -	583	21st Feb. 1868	Certain improvements in machinery or apparatus employed for sizeing yarn, termed "tape legs," being also applicable to other similar machinery.



[Amb]

## ALPHABETICAL INDEX OF PATENTEEES

[Arc]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
AMBLER, AUGUSTIN IREL -	3017	1st Oct. 1868	An improved mode of constructing the door frames of furnaces for steam generators. (Patented by William Robert Lake.)
AMEZAGA, FRANÇOIS DE -	3933	24th Dec. 1868	An improved combined boat and carriage designed for use on either land or water, and in apparatus connected therewith. (Patented by William Robert Lake.)
ANDERSON, GEORGE - -	727	3rd March 1868	Apparatus for moulding and compressing substances for artificial fuel.
ANDERSON, JAMES - -	3249	24th Oct. 1868	Improvements in the manufacture of felts and in machinery connected therewith.
ANDERSON, JAMES WHITELAW	1620	18th May 1868	Improvements in "temples" for looms and in the cases containing them.
ANDERSON, JOHN - -	1022	25th March 1868	Machinery employed for carding wool, cotton and other fibres.
ANDERSON, JOHN - -	1923	12th June 1868	Machinery employed for preparing and spinning hard waste or cop bottoms.
ANDERSON, JOHN REINHOLD	2564	17th Aug. 1868	An improved instrument to be used as a fog alarm and to produce audible signals. (Patented by William Edward Newton.)
ANDERSON, SAMUEL SMITH -	3746	9th Dec. 1868	Apparatus for the manufacture of bricks, tiles and other such articles from plastic materials.
ANDIRAN, ADOLPHE JEAN [JAMES D']	2148	7th July 1868	Dyeing. (Patented by George Davies.)
ANDOE, FRANCIS - -	2760	8th Sept. 1868	Improved lowering apparatus intended to be used as a fire-escape and for obtaining access to the exterior or other wall surfaces of buildings.
ANDREW, MATTHEW - -	3401	9th Nov. 1868.	An improved method of securing a door-knob or other handle upon a spindle. (Patented by William Robert Lake.)
ANDREW, RICHARD - -	2110	2nd July 1868	Machinery or apparatus employed for stopping the loom upon the breaking of a weft thread or threads.
ANDREWS, EDWIN - -	338	31st Jan. 1868	Trousers and breeches or other similar articles of wearing apparel.
ANDREWS, ELISHA WHITTELSEY	892	16th March 1868	Telegraphic apparatus. (Patented by William Edward Newton.)
ANDUZE, EUGÈNE - -	645	26th Feb. 1868	An improved machine intended to divide, break or crush all substances capable of being triturated, more especially bones and horny substances of every kind, for converting them into manure. (Patented by William Edward Gedge.)
ANTILL, JOSHUA - -	1002	24th March 1868	Stench traps.
APPLEBY, CHARLES JAMES -	921	18th March 1868	Improvements in cranes or other machinery for lifting, lowering and hauling by means of steam, gas, heated air or other fluid pressure, and in the boilers or furnaces for generating the power for the same, such improvements being applicable in part for other purposes.
APPLEBY, CHARLES JAMES -	1682	21st May 1868	Apparatus for drilling rock and stone for blasting and other purposes.
APPLETON, LEONARD - -	1103	1st April 1868	An improved method for calculating interest and apparatus therefor.
ARCHER, CHARLES - - -	3367	6th Nov. 1868	Manufacture of cigars.

[Arc]

## AND APPLICANTS FOR PATENTS OF INVENTION.

[Arx]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ARCHEREAU, HENRI ADOLPHE	1211	11th April 1868	A new method of obtaining heat and light, and its various applications, and in apparatus connected therewith.
ARCHEREAU, HENRI ADOLPHE	3101	9th Oct. 1868	A new method of obtaining heat and light, and its various applications, and in apparatus connected therewith.
ARCHIBALD, SAMUEL GEORGE	87	9th Jan. 1868	An improved mode of preparing tablets, paper, and other surfaces for receiving writing.
ARCHIBALD, SAMUEL GEORGE	2786	10th Sept. 1868	A new method of and improved apparatus for reaping corn and other grain, upon an improved method to that usually practised.
ARDACHE, FLORIMOND - -	391	5th Feb. 1868	Apparatus for winding flat cords, ropes and bands.
ARDREY, SAMUEL BRADLEY -	309	29th Jan. 1868	Velocipedes.
ARGAMAKOFF, ALEXANDER -	2507	11th Aug. 1868	Production, by means of photography, of printing surfaces adapted to lithography, typography and chromotype. (Partly communicated by Basil Bawler.)
ARKILL, THOMAS - - -	415	7th Feb. 1868	Apparatus for raising and lowering venetian and other blinds.
ARMSTEAD, SEPTIMUS FOWELL	1546	12th May 1868	An improved blow pipe apparatus.
ARMSTRONG, FREDERICK WOOL- [COT.]	2842	15th Sept. 1868	An improved covering for walls, ceilings and other surfaces. (Patented by William Robert Lake.)
ARMSTRONG, HENRY - - -	1071	30th March 1868	Manufacture of steel and homogeneous iron.
ARMSTRONG, JOHN - - -	1175	7th April 1868	Harrows.
ARMSTRONG, JOSEPH - - -	1332	23rd April 1868	Improvements in crossings and in switch apparatus to be used with the permanent way of railways.
ARMSTRONG, WILLIAM - - -	7	1st Jan. 1868	Breech-loading ordnance. (Patented by Alexander Melville Clark.)
ARMSTRONG, WILLIAM JOHN -	703	2nd March 1868	Anchors.
ARNOLD, ALFRED - - -	2425	1st Aug. 1868	An improved fastening for buttons, studs, solitaires, brooches, and other articles to which such fastening may be applied.
ARNOLD, JOHN - - -	2479	7th Aug. 1868	Construction of steam-boilers.
ARNOLD, JOHN - - -	3084	8th Oct. 1868	Construction of steam-boilers.
ARNOLD, WILLIAM MENORICE	59	7th Jan. 1868	Mode of combining wrought and cast-iron or other metals for various useful purposes. (Patented by George Davies.)
ARNOTT, SAMUEL - - -	3382	7th Nov. 1868	Braces.
AROUD, FRANÇOIS - - -	3978	31st Dec. 1868	A novel kind of sweetmeat. (Patented by William Edward Gedge.)
ARSON, LOUIS FRANÇOIS ALEX- [ANDRE.]	1300	21st April 1868	An improved mode or method of correcting the deviations of the mariner's compass in iron ships. (Patented by John Henry Johnson.)
ARTHUR, WALTER - - -	885	16th March 1868	The support and cure of hernia by means of a new and improved form of truss.
ARTHUR, WILLIAM - - -	885	16th March 1868	The support and cure of hernia by means of a new and improved form of truss.
ARUNDALE, JAMES - - -	3062	7th Oct. 1868	Shuttles.

• *Chlorophyll a* (Chl a) and *Chlorophyll b* (Chl b)

• *Carotenoids* (Carotenes and Xanthophylls)

• *Photosynthesis* (Light-dependent reactions and Calvin cycle)

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ABEL, CHARLES DENTON -	48	7th Jan. 1868	An improved method or process for removing sulphur, phosphorus and other impurities from iron, steel and other metals. (Communicated by John Francis Bennett.)
ABEL, CHARLES DENTON -	122	14th Jan. 1868	Treatment of woven fabrics for improving the appearance thereof. (Communicated by Eugène Paraf-Javal and Mathias Paraf-Javal.)
ABEL, CHARLES DENTON -	154	16th Jan. 1868	A new or improved system of moveable switches, tongues or rails for the crossings and intersections of the permanent way of railways. (Communicated by Jean Joseph Adolphe Poulet.)
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ABEL, CHARLES DENTON -	821	10th March 1868	Production of brown colouring matters for dying and printing. (Communicated by Jules Gabriel Alfred Gros.)
ABEL, CHARLES DENTON -	983	24th March 1868	Watches, chronometers and clocks. (Communicated by Clement Escherry.)
ABEL, CHARLES DENTON -	1124	3rd April 1868	A new or improved process and apparatus for refining camphor. (Communicated by Charles Emile Perret.)

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ABEL, CHARLES DENTON -	1278	20th April 1868	Treatment of textile fabrics for consolidating them and rendering them impermeable. (Communicated by Pierre Armand Neuman.)
ABEL, CHARLES DENTON -	1424	1st May 1868	The production of a new or improved colouring matter from aniline. (Communicated by Benoit Bloch.)
ABEL, CHARLES DENTON -	1463	5th May 1868	Axle-boxes for the rolling stock of railways. (Communicated by Maximilian Schmid Von Schmidsfelden.)
ABEL, CHARLES DENTON -	1687	22nd May 1868	Means and apparatus for drawing cop and other threads through shuttle holes and eyes. (Communicated by Charles Von Hartmann.)
ABEL, CHARLES DENTON -	1799	1st June 1868	Manufacture of alum and other aluminous compounds. (Communicated by Henry Pemberton.)
ABEL, CHARLES DENTON -	1819	3rd June 1868	Production of iodine. (Communicated by Jules Toché.)
ABEL, CHARLES DENTON -	1844	5th June 1868	A new or improved stopping motion for spinning machinery. (Communicated by Amand Boutemy.)
ABEL, CHARLES DENTON -	2052	26th June 1868	New or improved machinery or apparatus for cleansing or washing bottles. (Communicated by Adolphe Cointreau.)
ABEL, CHARLES DENTON -	2161	8th July 1868	Ornamenting textile fabrics, feathers, artificial flowers and such like articles. (Communicated by Louis Larrie.)
ABEL, CHARLES DENTON -	2340	25th July 1868	A new or improved process for separating the zinc from the argentiferous alloys obtained in the separation of silver from argentiferous lead by means of zinc, and improvements in the furnaces employed for that purpose. (Communicated by Hilarion Rouz.)
ABEL, CHARLES DENTON -	2548	15th Aug. 1868	Production of brown colouring matters for dyeing and printing. (Communicated by Jules Gabriel Alfred Gros.)
ABEL, CHARLES DENTON -	2630	15th Sept. 1868	Means and apparatus for securing buttons to articles of dress. (Communicated by Jacob Rothberger.)
ABEL, CHARLES DENTON -	2968	28th Sept. 1868	Improvements in converting cast iron into wrought iron, and in uniting oxides and fluxes with molten cast iron. (Communicated by Thomas Shoenberger Blair.)
ABEL, CHARLES DENTON -	3120	12th Oct. 1868	Screw propellers. (Communicated by Adolphe Aubert.)
ABEL, CHARLES DENTON -	3234	22nd Oct. 1868	Improvements in the construction of railways and in the rolling stock and structures therefor. (Communicated by Baron Ludwig Almos Lo Presti.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ABEL, CHARLES DENTON -	3515	19th Nov. 1868	Improvements in the manufacture of phosphorus and amorphous phosphorus, and in furnaces and apparatus employed for that purpose. (Communicated by Claude Brison.)
ABEL, CHARLES DENTON -	3539	21st Nov. 1868	A combined tobacco pouch and cigarette former. (Communicated by Felix Mazet.)
ABEL, CHARLES DENTON -	3565	23rd Nov. 1868	Improvements in converting cast iron into wrought iron, and in uniting oxides, fluxes and other substances with molten cast iron. (Communicated by Thomas Schoenberger Blair, Adolphus Guzman, Francis Ellershausen, and Augustus E. Stayner.)
ABEL, CHARLES DENTON -	3631	28th Nov. 1868	Manufacture of steel. (Communicated by Thomas Schoenberger Blair.)
ABEL, CHARLES DENTON -	3634	24th Dec. 1868	Rolling mills. (Communicated by Charles Mongin.)
ABEL, CHARLES DENTON -	3652	29th Dec. 1868	Improvements in the manufacture of wrought metal pipes and in the apparatus employed for that purpose. (Communicated by James Beach Clow.)
ABEL, FREDERICK AUGUSTUS -	3115	10th Oct. 1868	Mode of and apparatus for firing explosive compounds.
ABELSETH, CHRISTOPHER [NICOLAY.	2745	5th Sept. 1868	Apparatus for manufacturing gas. (Communicated by James Stratton.)
ABLETT, THOMAS MARK -	601	22nd Feb. 1868	Waist springs for boots and shoes.
ABRAHAM, JOHN - - -	952	20th March 1868	Central fire cartridges for breech-loading fire-arms.
ABRAHAM, JOHN - - -	3709	5th Dec. 1868	Central-fire cartridges for breech-loading fire-arms and ordnance.
ADAM, WILLIAM M <sup>c</sup> - -	2969	28th Sept. 1868	Improvements in arrangements or apparatus for facilitating omnibus traffic, the said improvements being also applicable otherwise and relating to tramways, wheels and carriages.
ADAMES, CHARLES HENRY -	334	31st Jan. 1868	Manufacture of portable metal buckets or pails and tubs.
ADAMS, JAMES ALISON -	1611	16th May 1868	Cooking ranges.
ADAMS, JOHN - - -	663	27th Feb. 1868	An improved stopper for bottles.
ADAMS, JOHN - - -	1724	26th May 1868	Machinery for washing or cleansing casks or barrels.
ADAMS, JOHN - - -	2708	2nd Sept. 1868	An improved stopper for bottles for containing aerated or gaseous liquids.
ADAMS, JOHN - - -	2775	9th Sept. 1868	Apparatus for supplying the syrup in the manufacture of aerated beverages and other liquids, also applicable to other purposes.
ADAMS, JOSEPH - - -	3312	29th Oct. 1868	Manufacture of bricks and tiles.
ADAMS, JOSEPH H. - -	1109	1st April 1868	Cotton gins. (Patented by Robert Joseph Morison.)
ADAMS, OTIS - - -	2231	15th July 1868	A new or improved tool or chisel for mortising machines. (Patented by Robert Chamberlin.)
ADAMS, WILLIAM - - -	3312	29th Oct. 1868	Manufacture of bricks and tiles.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BAKER, ROBERT BRECKEN- [RIDGE.	1801	2nd June 1868	Apparatus for preventing incrustation in steam-boilers. (Patented by Edward Primerose Howard Vaughan.)
BAKER, SAMUEL THOMAS -	1872	8th June 1868	An improved artesian tube well and lifting force pump.
BAKER, THOMAS - - -	1114	2nd April 1868	Umbrellas, sun shades and parasols.
BAKER, THOMAS JAMES -	1705	25th May 1868	Improvements in the manufacture of wheat and other grain into flour, and in the machinery connected therewith, part of which improvements are applicable to grinding gypsum and similar substances.
BAKER, WALTER JOSEPH -	1872	8th June 1868	An improved artesian tube well and lifting force pump.
BAKER, WILLIAM - - -	3376	6th Nov. 1868	Certain improvements in furnaces and fire-bars.
BAKEWELL, HERBERT JAMES -	1723	26th May 1868	Apparatus for steering ships.
BALAY, CHRISTOPHER - -	181	18th Jan. 1868	Ribbon looms. (Patented by Henri Adrien Bonneville.)
BALCH, GEORGE TACHER -	664	27th Feb. 1868	Construction or building of boats or vessels. (Patented by William Edward Newton.)
BALDWIN, CYRUS W. - -	1128	3rd April 1868	A new and useful device or instrument for measuring and registering the amount of a flowing liquid.
BALDWIN, FRANCIS - - -	2080	29th June 1868	Construction of steam-boilers.
BALDWIN, JAMES - - -	2080	29th June 1868	Construction of steam-boilers.
BALDWIN, WILLIAM - - -	1562	13th May 1868	Looms for weaving.
BALL, ALEXANDER - - -	3161	15th Oct. 1868	Improvements in the manufacture of lace made on bobbin net or twist lace machines, and in the machinery or apparatus employed therein.
BALL, JOHN - - - -	3161	15th Oct. 1868	Improvements in the manufacture of lace made on bobbin net or twist lace machines, and in the machinery or apparatus employed therein.
BALL, JOHN the younger -	1946	13th June 1868	Machinery or apparatus employed in the cutting off the superfluous portions of threads from spots, sprigs, figures or other devices made on lace or other fabrics.
BALL, JOHN the younger -	3743	8th Dec. 1868	Machinery or apparatus employed in the cutting off the superfluous threads or fibres from spots, sprigs or other devices made on lace or other fabrics.
BALTON, RUSSELL A. - -	307	29th Jan. 1868	Steam fireproof safes. (Patented by William Snell.)
BAMLETT, ADAM CARLISLE -	3615	27th Nov. 1868	Machinery for reaping and mowing.
BANARÉ, ARMAND - - -	2913	22nd Sept. 1868	Apparatus for registering the speed of ships and vessels, and of streams. (Patented by Clifton Edgcumbe Brooman.)
BANCROFT, JOSEPH - - -	1080	26th March 1868	Arrangements and apparatus for drying and preserving animal and vegetable substances. (Patented by Matthew Brown Orr.)
BANG, IVAR - - - -	3970	30th Dec. 1868	Preparation of impermeable paper for manufacturing several fabrics or articles.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BANKS, JOHN HENRY - -	2095	30th June 1868	An improved method of constructing buildings such as mission churches, chapels, schools or any other buildings where economy of cost is an object, and for an improved ventilator which may be used in the construction of the buildings generally.
BANKS, JOHN HENRY - -	3680	3rd Dec. 1868	An improved method of constructing buildings, such as mission churches, chapels, schools or any other buildings where economy of cost is an object, and for an improved method of heating and ventilating the same.
BANKS, JOHN HENRY - -	3681	3rd Dec. 1868	An improved method of constructing furnaces, whereby more perfect combustion takes place and the smoke from the fuel is more thoroughly consumed.
BANKS, RICHARD - - -	2738	5th Sept. 1868	An improved floor dog or cramp.
BARBARIN, ARTHUR - -	2898	19th Sept. 1868	Machinery or apparatus for lighting and regulating the flow of gas employed for illuminating purposes. (Patented by John Henry Johnson.)
BARBER, BENJAMIN - -	1345	24th April 1868	Certain improvements in the manufacture of woven fabrics termed "quiltings" and "toiletings," and for similar descriptions of fabrics.
BARBER, GEORGE HENRY -	2619	22nd Aug. 1868	Improved means of preserving meat and in apparatus connected therewith.
BARBOUR, JAMES - - -	362	3rd Feb. 1868	Machinery for hackling and scutching flax and other fibrous substances.
BARCLAY, ANDREW - - -	984	23rd March 1868	Improvements in barometers, thermometers, and in their combination with watches, clocks and other instruments.
BARCLAY, ANDREW - - -	1216	11th April 1868	Apparatus to be used in condensing steam in steam engines, applicable also to other purposes.
BARCLAY, ANDREW - - -	2924	23rd Sept. 1868	Improvements in barometers and thermometers, and in their combination with watches, clocks and other instruments.
BARCLAY, ANDREW - - -	3982	31st Dec. 1868	Air pumps.
BARCROFT, JAMES - - -	3073	8th Oct. 1868	Improvements in the manufacture of felted cloth and in machinery connected therewith.
BARDOU, DENIS ALBERT -	889	16th March 1868	Telescopes. (Patented by Frederick Henry Elliott and Charles Alfred Elliott.)
BARDOU, PIERRE GABRIEL -	889	16th March 1868	Telescopes. (Patented by Frederick Henry Elliott and Charles Alfred Elliott.)
BARFORD, WILLIAM - - -	700	29th Feb. 1868	Apparatus for raising and stacking straw and other agricultural produce.
BARKER, ABRAHAM - - -	1836	4th June 1868	Covering rollers and clearers used in machinery for preparing and spinning fibrous materials.
BARKER, CHARLES SPACKMAN	232	22nd Jan. 1868	Construction of organs.



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## ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BARKER, JOHN - - -	718	3rd March 1868	Certain improvements in the method of consuming smoke from the fuel used in furnaces, and in the method of supplying fuel to furnaces, and in apparatus connected therewith.
BARKER, JOHN - - -	1007	25th March 1868	Apparatus for lubricating axles and bearings and other frictional surfaces.
BARLOW, HENRY BERNOULLI	807	9th March 1868	Machinery for carding, combing and straightening the fibres of cotton and other fibrous substances. (Communicated by Charles Auguste Veillon.)
BARLOW, HENRY BERNOULLI	1554	13th May 1868	Apparatus for preventing the incrustation and the accumulation of sediment in steam boilers. (Communicated by Carl Forster junr.)
BARLOW, HENRY BERNOULLI	2270	20th July 1868	Machinery for preparing, spinning and doubling cotton and other fibrous substances. (Communicated by Eugene Huret and François Louis Debruyne.)
BARLOW, JONATHAN - -	514	15th Feb. 1868	Carriages. (Partly communicated by George Keller.)
BARLOW, PETER WILLIAM -	813	9th March 1868	Machinery for constructing tunnels.
BARLOW, ROBERT - - -	1754	28th May 1868	Apparatus for preventing waste of water in or from waterclosets, and drinking fountains, cisterns, tanks and other like receptacles.
BARLOW, SAMUEL - - -	1904	11th June 1868	Furnaces for steam-boilers and other purposes.
BARNABY, NATHANIEL - -	2326	24th July 1868	Sheathing iron or steel ships or vessels with zinc or other metal or material not galvanically destructive to iron in sea water.
BARNARD, CHARLES - - -	1662	20th May 1868	Chairs and other articles of furniture to sit or recline upon.
BARNEKOV, KIEL VOLMAR -	1376	27th April 1868	Breech-loading fire-arms.
BARNES, FREDERIC - - -	447	10th Feb. 1868	A new or improved method of and apparatus for working and communicating motion to signals on railways.
BARNES, ROBERT WILLIAM -	1532	11th May 1868	Head and waste rests for the use of photographers.
BARNES, THOMAS - - -	850	12th March 1868	An improved method of and machinery for preparing rovings from waste and other inferior fibrous materials.
BARNETT, FREDERIC - - -	1433	2nd May 1868	An improved unspillable pail or vase.
BARNETT, FREDERIC - - -	2530	13th Aug. 1868	An improved apparatus for swimming.
BARNETT, FREDERIC - - -	3111	10th Oct. 1868	An improved system of paving by the employment of natural or artificial bitumen combined with iron ore, and for an improved process of manufacturing the artificial bitumen.
BARNUM, ISAAC WILLIAMS -	3659	1st Dec. 1868	Tuck markers for sewing-machines.
BARRAN, JACINTO - - -	2389	30th July 1868	Improvements in the manufacture of silk velvets which are woven face to face and then cut asunder, also in treating silk to be used in such manufacture. (Patented by Samuel Cunliffe Lister.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BARRANS, JOSEPH - -	2641	25th Aug. 1868	Improved machinery or apparatus for flattening hackle gill comb or card pins, also the heads of needles, and articles of a like nature.
BARRET, AMÉDÉE - -	2391	30th July 1868	An improved process for obtaining heliographic plates for printing. (Patented by George Davies.)
BARRETT, HENRY - -	663	27th Feb. 1868	An improved stopper for bottles.
BARRETT, HENRY - -	2708	2nd Sept. 1868	An improved stopper for bottles for containing aerated or gaseous liquids.
BARRETT, HENRY - -	2775	9th Sept. 1868	Apparatus for supplying the syrup in the manufacture of aerated beverages and other liquids, also applicable to other purposes.
BARRETT, WILLIAM - -	1205	11th April 1868	Improvements in the treatment and reduction of titaniferous iron ores for the manufacture of iron, and in the application of slag or cinder produced in such processes.
BARRETTO, ANTOINE JOAQUIM	1434	2nd May 1868	New or improved apparatus for measuring and registering the flow of liquids. (Patented by Henri Adrien Bonneville.)
BARRETTO, JEAN JOSEPH -	1434	2nd May 1868	New or improved apparatus for measuring and registering the flow of liquids. (Patented by Henri Adrien Bonneville.)
BARRON, HENRY STRACEY -	471	12th Feb. 1868	Improvements in double-action reciprocating pumps, by which the usual suction and delivery valves are dispensed with and their functions performed by means of a sliding action of the barrel.
BARTH, GEORGE HARMAN -	2867	17th Sept. 1868	Apparatus for administering and supplying and purifying gases or vapours for medicinal and other purposes.
BARTLETT, JOSEPH WEA- [THERBY]	2088	29th June 1868	An improved apparatus for generating and burning the vapour of naphtha. (Patented by William Robert Lake.)
BARTON, EDWIN - -	3340	3rd Nov. 1868	Scarves or neckties.
BARTON, GEORGE SAMUEL -	3448	13th Nov. 1868	A new manufacture of upholstery trimmings woven of silk, worsted and cotton.
BARTON, SETH MAXWELL -	2453	5th Aug. 1868	Manufacture of iron and steel. (Patented by Alfred Vincent Newton.)
BARTON, WILLIAM - -	1899	10th June 1868	Kitchen ranges or cooking stoves.
BARTRAM, WILLIAM - -	1852	24th April 1868	Manufacture of cartridges.
BARTRAM, WILLIAM -	1853	24th April 1868	Apparatus for filling, closing and recapping cartridges.
BASEVI, CHARLES EDWARD -	1584	14th May 1868	Projectiles. (Patented by Nathaniel Basevi.)
BASEVI, NATHANIEL - -	1584	14th May 1868	Projectiles. (Communicated by Charles Edward Basevi.)
BASS, JOHN HOLMES - -	667	27th Feb. 1868	Double canisor vessels to contain liquids or substances which it is desired to protect from the influence of external temperature.
BASSETT, WILLIAM THOMAS -	3510	18th Nov. 1868	Improved means or apparatus for washing, cleansing and dressing sheep or other animals.

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## ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BASSON, WILHELM - -	2011	22nd Sept. 1868	An improved axle-box for railway-carriage and other similar axles. (Patented by William Lloyd Wise.)
BASTOW, JOHN - - -	2214	14th July 1868	Bleaching or whitening textile fabrics, yarns and threads made from flax, cotton or other vegetable fibrous materials.
BATCHELOR, JAMES - -	157	17th Jan. 1868	An improved power loom for weaving Brussels carpets.
BATEMAN, HYDE - - -	956	20th March 1868	Manufacture of corkscrews.
BATES, ALFRED MASON -	2282	20th July 1868	Manufacture of flexible tubes or hose.
BATES, ISAAC - - -	1047	27th March 1868	An apparatus for cleaning the flues of boilers and boiler seatings.
BATES, STEPHEN - - -	858	13th March 1868	Manufacture of lace in twist lace machines.
BATES, STEPHEN - - -	3025	2nd Oct. 1868	Manufacture of lace made on bobbin net or twist lace machines.
BATES, WILLIAM EDWIN -	3325	31st Oct. 1868	Certain improvements in machinery or apparatus for cracking nuts.
BATES, WILLIAM HENRY -	2282	20th July 1868	Manufacture of flexible tubes or hose.
BATHIAS, CLAUDE MARIE -	1151	6th April 1868	Means or apparatus for measuring and indicating the passage or flow of liquids. (Patented by Eugene Hay.)
BATHO, WILLIAM FOTHERGILL	1650	20th May 1868	Machinery for planing or shaping metals, wood or other materials.
BATSTONE, JOHN - - -	2483	8th Aug. 1868	An improved shield for the purpose of protecting fortifications, vessels and other structures or buildings, against projectiles or other missiles of war.
BATSTONE, JOHN - - -	2905	21st Sept. 1868	An improved method of fixing or attaching armour plates to vessels, fortifications and other structures.
BATTY, JOHN ROBERTS - -	1679	21st May 1868	Saddles for frames used in the spinning of flax or other fibrous substances.
BAUDET, PAUL - - -	2119	2nd July 1868	Barometers and other pressure indicators. (Patented by Alexander Melville Clark.)
BAUER, PHILIP - - -	563	20th Feb. 1868	Certain improvements in apparatus to be employed for lubricating revolving shafts or axles.
BAULER, BASILE - - -	2507	11th Aug. 1868	Production, by means of photography, of printing surfaces adapted to lithography, typography, and chromotype. (Patented by Alexander Argamakoff.)
BAUMAN, FREDERIK - -	1050	27th March 1868	The preparation of a certain combination of chemical substances, and its novel application to the treatment of wood or other fibrous material in the preparation of paper pulp.
BAUMANN, ALEXANDER - -	882	16th March 1868	Construction of rotary engines.
BAUMANN, ALEXANDER, -	3806	15th Dec. 1868	Pressure-governed slide valves.
BAUNSCHEIDT, CHARLES -	2410	31st July 1868	A new or improved instrument to be used in the treatment of rheumatism and other diseases. (Patented by Rudolph Eugen Drinkhaus.)
BAXTER, WILLIAM - - -	2081	29th June 1868	Improvements in apparatus for drying textile fabrics and fibrous substances, applicable also for heating or cooling and evaporating liquids.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BAXTER, WILLIAM - - -	3985	31st Dec. 1868	Wrenches. (Patented by George Miles Wells.)
BAYART, JULIEN HYACINTHE [JOSEPH.	2120	2nd July 1868	Improvements in the treatment or preparation of flax, hemp, jute and other fibrous matters for spinning purposes, and in apparatus for the same. (Patented by Alexander Melville Clark.)
BAYFORD, AUGUSTUS FREDERICK. [RICK.	473	12th Feb. 1868	Improved apparatus for facilitating the watering of plants in pots, in conservatories, greenhouses and other similar structures.
BAYLDON, GEORGE WOOD -	1371	27th April 1868	Boilers and furnaces.
BAYLEY, EDWARD HODSON -	3522	20th Nov. 1868	Improvements in carts or other vehicles for the removal of snow from streets, roads and other places, and in apparatus connected therewith for melting the said snow and disposing of the water thus produced, the said carts being able to be applied if required to other useful purposes.
BAYLEY, EDWARD HODSON -	3773	12th Dec. 1868	Improvements in filter vans and carts and in apparatus connected therewith, some of the said improvements being applicable to filters in general.
BAYLIS, THOMAS HUTCHINSON	1207	11th April 1868	Improvements in cribs, cots, bassinets and bedsteads, entitled the patent bed guard.
BAYLISS, JOHN - - -	1949	15th June 1868	Tuyeres for furnaces and forges. (Patented by Frederick Worcester.)
BAYLISS, THOMAS RICHARD -	952	20th March 1868	Central fire cartridges for breech-loading fire-arms.
BAYLISS, WILLIAM - - -	2003	20th June 1868	Certain improvements in the manufacture of wrought-iron hurdles, gates and fencing.
BAYNES, FREDERICK JAMES -	188	18th Jan. 1868	Improvements in kitchen ranges, which improvements are also applicable to other cooking stoves.
BAYNES, FREDERICK JAMES -	801	7th March 1868	Improvements in kitchen ranges and parts connected therewith, which improvements are also applicable to other cooking stoves.
BAYNES, HORACE - - -	1500	7th May 1868	An improved mode of renovating files by an electro-chemical process. (Patented by Arthur Charles Henderson.)
BAZALGETTE, JOHN VAN [NORDEN.	3562	23rd Nov. 1868	Improvements in deodorizing and manufacturing manures from sewage and other foul waters, and in apparatus employed therein.
BEALE, WILLIAM - - -	1471	5th May 1868	Step and other ladders.
BEANES, EDWARD - - -	2274	20th July 1868	Brewing.
BEANES, EDWARD - - -	2561	17th Aug. 1868	Manufacture of brewers' finings.
BEARD, AMBROSE - - -	13	1st Jan. 1868	Furnaces and firebars.
BEARD, AMBROSE the younger -	884	16th March 1868	Apparatus for puddling iron and steel.
BEARD, JOHN RUSSELL - -	1411	30th April 1868	Woven fabrics.
BEARDMORE, WILLIAM - -	303	28th Jan. 1868	An improved process to be used in the manufacture of iron and steel, and improvements in the apparatus or means to be employed therefor.
BEARDS, THOMAS - - -	2860	17th Sept. 1868	An improved steam plough.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BEATTIE, WILLIAM GEORGE -	888	14th March 1868	Steam pistons.
BEATTIE, WILLIAM GEORGE -	3588	24th Nov. 1868	Slide valves.
BEATTY, GEORGE - - -	682	25th Feb. 1868	Heels for boots and shoes. (Patented by John Lewis Jaquet.)
BEAUMONT, EDOUARD DE -	185	18th Jan. 1868	Ovens or kilns for firing or baking porcelain and various kinds of earthenware or pottery. (Patented by William Edward Newton.)
BEAUMONT, FREDERICK ED- [WARD BLACKET.	1682	21st May 1868	Apparatus for drilling rock and stone for blasting and other purposes.
BEBRO, MARCUS - - -	2094	30th June 1868	Mechanism or apparatus to be employed for numbering and printing tickets consecutively.
BEBRO, MARCUS - - -	2172	9th July 1868	Certain improvements in apparatus for containing and delivering tickets or continuous lengths of paper or other similar materials.
BECK, LOUIS - - - -	2339	25th July 1868	Apparatus for drying filamentous matters, tissues and other substances. (Patented by Clinton Edgcumbe Brooman.)
BECKER, LEWIS MATTHEWS -	130	15th Jan. 1868	Improvements in the mode of laying, supporting and maintaining the wires used for electric telegraph and other purposes, parts of which improvements are applicable to other purposes.
BECKER, LEWIS MATTHEWS -	578	21st Feb. 1868	Manner of indicating the position and supply of fire plugs, fire cocks, fire alarms and for other purposes.
BECKETT, SAMUEL - - -	309	29th Jan. 1868	Velocipedes.
BECKLEY, ROBERT - - -	3464	14th Nov. 1868	Means or apparatus for measuring and registering the quantities of flowing liquids, which invention may be used as a rain gauge or as a liquid meter, and for measuring the strength of liquor run off from a still or other apparatus or vessel.
BECKLEY, ROBERT WHITTING- [HAM.	3345	4th Nov. 1868	An improved pen-rest applicable also to inkstands.
BECKS, ARTHUR THOMAS -	3004	30th Sept. 1868	Manufacture of rouge and polishing powders.
BEDFORD, JOSEPH - - -	1179	8th April 1868	Improved means and apparatus for washing and drying grain.
BEE, BENJAMIN - - - -	1196	9th April 1868	Improvements in dies and in machinery for cutting dies and taps. (Patented by George Tomlinson Bousfield.)
BEECH, FREDERICK - - -	3697	4th Dec. 1868	Improvements in gullies or stench traps, and in mud boxes connected therewith.
BEECH, THOMAS SPRING LAKE	883	16th March 1868	Engines for obtaining rotary motion by means of steam, water, gas or other fluids.
BEELEY, THOMAS - - - -	543	19th Feb. 1868	Keirs.
BEELEY, THOMAS - - - -	1421	30th April 1868	Improvements in boilers and in apparatus for effecting the consumption of smoke in the furnaces of boilers.
BEELEY, THOMAS - - - -	1904	11th June 1868	Furnaces for steam-boilers and other purposes.
BEEB, SIGISMUND - - -	553	19th Feb. 1868	An improved process of seasoning and preserving wood. (Patented by William Robert Lake.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BEEVERS, JOSEPH - - -	1540	11th May 1868	Apparatus for the prevention of smoke in steam-boiler and other furnaces.
BEHRENS, HENRY JOHN -	2572	17th Aug. 1868	Improvements in machinery for obtaining motive-power, parts of which improvements are also applicable for other purposes.
BEK, CONRAD - - -	2153	7th July 1868	Treatment of straps or bands for driving machinery. (Patented by Ferdinand Veith.)
BEK, HEINRICH - - -	2153	7th July 1868	Treatment of straps or bands for driving machinery. (Patented by Ferdinand Veith.)
BELAIEFF, ALEX - - -	3377	6th Nov. 1868	Mode of and apparatus for forming screw threads on wrought iron bolts. (Patented by Marc Antoine Francois Menons.)
BELIARD, AUGUSTE - -	3944	26th Dec. 1868	An improved portable lamp or lantern. (Patented by Clinton Edgcumbe Brooman.)
BELL, ALEXANDER MIEN -	2004	20th June 1868	Machinery for cutting or worming screws.
BELL, ANTHONY - - -	1649	20th May 1868	Valves of steam-engines.
BELL, BENJAMIN - - -	3508	18th Nov. 1868	Improvements in the construction of iron ships for the purpose of affixing their sheathing, and in the mode or means of affixing their sheathing.
BELL, SAMUEL ALEXANDER -	730	3rd March 1868	Improvements in the manufacture of match boxes and in apparatus to be used therein.
BELL, THOMAS LESSLIE GREG- [SON.	257	24th Jan. 1868	Improvements in preparing oxide of iron for purifying gas, and in treating the oxide of iron residues to obtain products therefrom.
BELL, VALENTINE GRÈME -	1582	14th May 1868	Locomotive engines and tenders.
BELLAIR, BENJAMIN - -	3567	24th Nov. 1868	Safety tackle for raising and lowering heavy weights. (Patented by John Henry Johnson.)
BELLHOUSE, EDWARD TAYLOR	3040	6th Oct. 1868	Hydraulic presses employed in the packing of cotton or other materials or substances.
BELLHOUSE, WILLIAM, junior.	871	14th March 1868	Certain improvements in carding-engines.
BENEDICT, ELIAS URIAH -	1847	5th June 1868	Improvements in and connected with springs to be applied to railway rolling stock and otherwise. (Patented by Thomas Currie Gregory.)
BENEDICT, ELLBRIDGE GERRY	200	20th Jan. 1868	Improvements in ships for containing and transporting oils or burning fluids, also in raising such oils or burning fluids and supplying the same as fuel to the furnaces of steam ships, parts of which improvements are applicable to the ballasting of ships with water. (Patented by John Henry Johnson.)
BENINGFIELD, EDWARD - -	1185	8th April 1868	An improved lifting machine applicable as a fire-escape, and for repairing and decorating houses and other buildings.
BENJAMIN, HENRY - - -	2474	7th Aug. 1868	A new or improved washing-machine.
BENJAMIN, SAMUEL - - -	77	8th Jan. 1868	Receptacles for coin or other valuable articles. (Communicated by William Benjamin.)
BENJAMIN, SAMUEL - - -	2771	8th Sept. 1868	A new or improved blind for hansom cabs or other open vehicles.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BENJAMIN, WILLIAM - -	77	8th Jan. 1868	Receptacles for coin or other valuable articles. (Patented by Samuel Benjamin.)
BENNETT, FREDERICK - -	3223	22nd Oct. 1868	A new mode of and means or apparatus for facilitating the capture of whales and other fish or animals. (Partly communicated by John Clayton Randall.)
BENNETT, GEORGE - -	2127	3rd July 1868	Certain improvements in the method of and means for effecting communication between guards, passengers and engine drivers on railways.
BENNETT, JOHN FRANCIS -	48	7th Jan. 1868	An improved method or process for removing sulphur, phosphorus and other impurities from iron, steel and other metals. (Patented by Charles Denton Abel.)
BENNETT, JOSEPH - - -	293	23th Jan. 1868	Improved means or appliances for facilitating the transit and application of caloric, also for mixing caloric with air, water and other fluids and gases, also for economizing the consumption of fuel, consuming smoke, generating steam, and increasing and distributing heat, and for refrigerating purposes.
BENNETT, JOSEPH - - -	2363	23th July 1868	Improved means or appliances for facilitating the transit and application of caloric, also for mixing caloric with air, water and other fluids and gases, also for economizing the consumption of fuel, consuming smoke, generating steam, and increasing and distributing heat, and for refrigerating purposes.
BENNETT, SOLOMON - -	228	22nd Jan. 1868	Means or apparatus to facilitate the drying of grain, seed, brewers' grains and other matters.
BENNETT, THOMAS - -	2783	10th Sept. 1868	Improvements in the manufacture of spoons, forks and ladles, which improvements are also applicable to handles generally, composed of sheet or hoop iron or other sheet metal, and in the machinery or apparatus employed therein.
BENNETT, WILLIAM JOHN -	510	15th Feb. 1868	Improved apparatus for separating the solid and watery particles of slop and sewage.
BENNISON, HENRY LEONARD -	3403	10th Nov. 1868	An improved rotary engine and pump to be driven by water or steam power.
BENOIT-DULIN - - -	121	14th Jan. 1868	Construction of breech-loading fire-arms. (Patented by William Edward Gedge.)
BENSON, GEORGE HENRY -	3842	17th Dec. 1868	Improvements in the manufacture of iron and steel and in the apparatus employed therein.
BENSON, GEORGE HENRY -	3843	17th Dec. 1868	Improvements in the generation or production of combustible gases and in the apparatus employed therein.
BENSON, JOHN SOLMONS -	1950	15th June 1868	Breech-loading fire-arms.
BENSON, MARTIN - - -	2458	6th Aug. 1868	Low-water indicators and safety valves for steam-boilers. (Communicated by Charles Burley.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BENSON, MARTIN - - -	2831	15th Sept. 1868	Steam pumping machinery or engines. (Communicated by James Riley Maxwell and Ezra Cope.)
BENSON, MARTIN - - -	3305	29th Oct. 1868	Shaft couplings. (Communicated by John Richards.)
BENT, SAMUEL SHAW - -	1929	12th June 1868	Poultry houses or coops and the nests and feeding pans therefor.
BENTHAM, ROBERT HUNTER -	1764	28th May 1868	Improved apparatus for facilitating the flow of liquids from barrels or other closed vessels, and for lifting or forcing liquids to any desired height.
BENTHAM, ROBERT HUNTER -	3069	7th Oct. 1868	An apparatus or instrument for drawing lines radiating from a known centre, particularly adapted for the use of draughtsmen in drawing perspective views.
BENTLEY, JOHN FLOWERS -	3764	10th Dec. 1868	Improvements in the mode of sinking or forming wells and in the apparatus to be used therefor, parts of which improvements are also applicable for the sinking of cylinders or caissons for other purposes.
BENTON, BENJAMIN - -	3116	10th Oct. 1868	Cocks, taps and apparatus for drawing off liquids or gases from pipes, casks or other vessels, and for filling casks and other vessels with liquids or gases.
BENVENUTI FORTUNÉ FRAN- [ÇOIS.	1877	9th June 1868	An improved inkstand.
BÉRARD, ARISTIDE BALTHA- [ZARD.	3237	23rd Oct. 1868	Processes and apparatuses for converting cast-iron into steel.
BÉRARD ARISTIDE BALTHA- [ZARD.	3715	7th Dec. 1868	Processes and apparatus for manufacturing, collecting and purifying gas for heating and other purposes.
BERDAN, HIRAM - - -	317	29th Jan. 1868	Improvements in breech-loading fire-arms and in cartridges and bullets for the same. (Patented by William Edward Newton.)
BERDAN, HIRAM - - -	1200	9th April 1868	Improvements in fire-arms and in cartridges for the same. (Patented by William Edward Newton.)
BERENGER, LAURENT - -	3338	3rd Nov. 1868	An improved machine for ironing and pressing cloth or other materials.
BERGEN, GARRET PETER -	2528	12th Aug. 1868	Photographic frames and mechanism for making the same. (Patented by William Edward Newton.)
BERGEN, GARRET PETER -	2997	30th Sept. 1868	An improved scissors sharpener. (Patented by William Edward Newton.)
BERGUE, CHARLES DE - -	962	23rd March 1868	Improvements in locomotive engines, and in the modes of transmitting the power of a locomotive engine to the tender and other carriages of a train, for converting their wheels into driving wheels.
BERGUE, CHARLES DE - -	2228	15th July 1868	Improvements in strong rooms and in safes.
BERGUE, CHARLES DE - -	2834	15th Sept. 1868	Gas cooking stoves.
BERGUE, CHARLES DE - -	3977	31st Dec. 1868	Permanent way of railways and of street tramways.
BERNARD, JULIAN - - -	1355	24th April 1868	Improvements in preparing and dressing ores and minerals, and in the machinery or apparatus employed therein.



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## ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BERNARD, JULIAN - - -	3247	23rd Oct. 1868	Improvements in preparing and dressing ores and minerals, and in the machinery or apparatus employed therein.
BERNEY, THOMAS - - -	2885	19th Sept. 1868	Improvements in the construction, forms and means of applying defensive armour, and in the forms and in the use of some parts thereof, and also in the construction and use of apparatus for effecting the above purposes, for the defence of ships and other vessels, forts, batteries and other fortifications, parts of which improvements are applicable to other purposes.
BERNEY, THOMAS - - -	3473	16th Nov. 1868	Improvements in the mounting and working of ordnance and defensive armour, and in the construction, forms and means of applying defensive armour, and in the forms and in the use of some parts thereof, and also in the construction and use of apparatus for effecting the above purposes, for the defence of ships and other vessels, forts, batteries and other fortifications, and of ordnance in them and elsewhere where required, parts of which improvements are also applicable to other purposes.
BERNHARDT, GEORGE - - -	2884	19th Sept. 1868	Improvements in or applicable to machines for preparing, spinning and doubling fibrous materials.
BERNHARDT, GEORGE - - -	3581	25th Nov. 1868	Arrangements and apparatus for regulating and economising the supply of gas in mills and manufactories.
BERNIER, AUGUSTE - - -	316	29th Jan. 1868	Self-acting brakes for carriages. (Patented by William Edward Newton.)
BERRY, WALTER - - -	1491	6th May 1868	Improvements in separating tares and other impurities from grain and other seeds, and in the apparatus or means connected therewith. (Patented by James Graham Walker and Charles Stein.)
BERRY, WILLIAM - - -	795	7th March 1868	Foot-steps for upright spindles and shafts.
BERRY, WILLIAM - - -	2266	18th July 1868	Means or apparatus for lighting shops, rooms and other places, from the outside of the building, by gas, oil or other illuminating materials.
BERRY, WILLIAM - - -	3766	11th Dec. 1868	Spinning and twisting frames.
BERRON, RUBIN - - -	2239	16th July 1868	A new apparatus for the rapid boiling by means of charcoal fire, and for a self-acting bellows for aerating the same.
BENTHIER, STANISLAS LOUIS (ALEXANDRE.)	1008	25th March 1868	Improvements in apparatus for exhibiting advertisements, and in apparatus for distributing prospectuses, cards, circulars and other papers. (Patented by Henri Adrien Bonneville.)
BENTLEY, JOSEPH HUME - - -	3336	2nd Nov. 1868	Manufacture of lace in twist lace machines.
BENTHAM, FREDERICK MORITZ (HENRI.)	1838	4th June 1868	An improved mode of mounting photographic and other pictures, patterns and advertisements. (Patented by Nahum Salomon.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BERTRAM, FREDERICK MORITZ [BERAL.	1862	6th June 1868	Improved apparatus for storing and measuring petroleum and other liquids. (Patented by Alfred Vincent Newton.)
BERTRAM, FREDERICK MORITZ [BERAL.	2616	22nd Aug. 1868	An improved mode of obtaining illuminated devices and designations.
BERTRAND, FRANÇOIS - -	3607	26th Nov. 1868	Means and apparatus for dressing, moulding and polishing stone, marble and other similar substances. (Patented by Edward Thomas Hughes.)
BERTRAND, HENRY - -	2777	9th Sept. 1868	Metallic spring packings. (Patented by Alexander Melville Clark.)
BESSEMER, HENRY - -	965	21st March 1868	Manufacture of refined iron and of malleable iron and steel.
BESSEMER, HENRY - -	967	21st March 1868	Improvements in the manufacture of malleable iron and steel, and in apparatus used in such manufacture.
BESSEMER, HENRY - -	1095	31st March 1868	Improvements in the manufacture of malleable iron and steel, in the heating and melting of metals, and in the machinery or apparatus employed for such purposes.
BESSEMER, HENRY - -	3419	10th Nov. 1868	Improvements in the manufacture of cast steel and homogeneous malleable iron, and in the fusion or melting of different kinds or qualities of iron and steel and their alloys, and also in the construction and mode of working the furnaces and apparatus employed for such purposes.
BETJEMANN, GEORGE - -	2209	13th July 1868	Book slides.
BETJEMANN, GEORGE WILLIAM	2209	13th July 1868	Book slides.
BETJEMANN, JOHN - -	2209	13th July 1868	Book slides.
BETTELEY, JOSEPH - -	667	13th March 1868	Manufacture of sheet metal bolts and ships' sheathing.
BETTELEY, JOSEPH - -	1412	30th April 1868	Improvements in ship building and in fastenings, bolts and sheet metal to be used therefor and for other purposes.
BETTNEY, THOMAS - -	1032	26th March 1868	An improvement in paper cutting machines, which improvement is also applicable to certain printing machines, envelope and label punching machines, and to other similar machines for punching shapes.
BETTS, WALTER - - -	1966	17th June 1868	Apparatus for weighing carriages, waggons, carts and other vehicles.
BETTS, WILLIAM - - -	150	16th Jan. 1868	A new manufacture of a material to be used in the production of capsules, and for other purposes where thin flexible metallic sheets are employed.
BETTS, WILLIAM - - -	540	18th Feb. 1868	Improvements in the production of trade marks or other designs upon metallic capsules for bottles and other like receptacles, and in the apparatus or means employed therein.
BETTS, WILLIAM - - -	2657	16th Sept. 1868	Machinery or apparatus for capsuling bottles, jars and other like receptacles.
BETTS, WILLIAM - - -	3653	1st Dec. 1868	Improvements in the manufacture of capsules for bottles, jars and similar vessels, and in apparatus employed therein.
BÉZY, AUGUSTE LÉON - -	786	6th March 1868	Construction of steam-boilers. (Patented by John Garrett Tongue.)

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BERNEY, THOMAS - - -	2885	19th Sept. 1868	Improvements in the construction, forms and means of applying defensive armour, and in the forms and in the use of some parts thereof, and also in the construction and use of apparatus for effecting the above purposes, for the defence of ships and other vessels, forts, batteries and other fortifications, parts of which improvements are applicable to other purposes.
BERNEY, THOMAS - - -	3473	16th Nov. 1868	Improvements in the mounting and working of ordnance and defensive armour, and in the construction, forms and means of applying defensive armour, and in the forms and in the use of some parts thereof, and also in the construction and use of apparatus for effecting the above purposes, for the defence of ships and other vessels, forts, batteries and other fortifications, and of ordnance in them and elsewhere where required, parts of which improvements are also applicable to other purposes.
BERNHARDT, GEORGE - -	2884	19th Sept. 1868	Improvements in or applicable to machines for preparing, spinning and doubling fibrous materials.
BERNHARDT, GEORGE - -	3581	25th Nov. 1868	Arrangements and apparatus for regulating and economising the supply of gas in mills and manufactories.
BERNIER, AUGUSTE - - -	316	29th Jan. 1868	Self-acting brakes for carriages. (Patented by William Edward Newton.)
BERRY, WALTER - - -	1491	6th May 1868	Improvements in separating tares and other impurities from grain and other seeds, and in the apparatus or means connected therewith. (Patented by James Graham Walker and Charles Stein.)
BERRY, WILLIAM - - -	795	7th March 1868	Foot-steps for upright spindles and shafts.
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BERSON, RUBIN - - -	2239	16th July 1868	A new apparatus for the rapid boiling by means of charcoal fire, and for a self-acting bellows for aerating the same.
BERTHIER, STANISLAS LOUIS [ALEXANDRE.]	1008	25th March 1868	Improvements in apparatus for exhibiting advertisements, and in apparatus for distributing prospectuses, cards, circulars and other papers. (Patented by Henri Adrien Bonneville.)
BERTIE, JOSEPH HUME - -	3336	2nd Nov. 1868	Manufacture of lace in twist lace machines.
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BESSEMER, HENRY - -	967	21st March 1868	Improvements in the manufacture of malleable iron and steel, and in apparatus used in such manufacture.
BESSEMER, HENRY - -	1095	31st March 1868	Improvements in the manufacture of malleable iron and steel, in the heating and melting of metals, and in the machinery or apparatus employed for such purposes.
BESSEMER, HENRY - -	3419	10th Nov. 1868	Improvements in the manufacture of cast steel and homogeneous malleable iron, and in the fusion or melting of different kinds or qualities of iron and steel and their alloys, and also in the construction and mode of working the furnaces and apparatus employed for such purposes.
BETJEMANN, GEORGE - -	2209	13th July 1868	Book slides.
BETJEMANN, GEORGE WILLIAM	2209	13th July 1868	Book slides.
BETJEMANN, JOHN - -	2209	13th July 1868	Book slides.
BETTELEY, JOSEPH - -	867	13th March 1868	Manufacture of sheet metal bolts and ships' sheathing.
BETTELEY, JOSEPH - -	1412	30th April 1868	Improvements in ship building and in fastenings, bolts and sheet metal to be used therefor and for other purposes.
BETTNEY, THOMAS - -	1032	26th March 1868	An improvement in paper cutting machines, which improvement is also applicable to certain printing machines, envelope and label punching machines, and to other similar machines for punching shapes.
BETTS, WALTER - - -	1966	17th June 1868	Apparatus for weighing carriages, waggons, carts and other vehicles.
BETTS, WILLIAM - - -	150	16th Jan. 1868	A new manufacture of a material to be used in the production of capsules, and for other purposes where thin flexible metallic sheets are employed.
BETTS, WILLIAM - - -	540	18th Feb. 1868	Improvements in the production of trade marks or other designs upon metallic capsules for bottles and other like receptacles, and in the apparatus or means employed therein.
BETTS, WILLIAM - - -	2857	16th Sept. 1868	Machinery or apparatus for capsuling bottles, jars and other like receptacles.
BETTS, WILLIAM - - -	3653	1st Dec. 1868	Improvements in the manufacture of capsules for bottles, jars and similar vessels, and in apparatus employed therein.
BÉZY, AUGUSTE LÉON - -	786	6th March 1868	Construction of steam-boilers. (Patented by John Garrett Tongue.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BICKERTON, JOSEPH - -	1154	6th April 1868	Lithographic, zincographic and typographic printing machines.
BICKERTON, RICHARD - -	750	4th March 1868	Reaping and mowing machines or harvesting machines.
BICKERTON, RICHARD - -	2341	25th July 1868	Drill rollers and seed sowers combined or as separate machines.
BIDDER, SAMUEL PARKER the [younger.	3275	26th Oct. 1868	Means and apparatus for breaking down coal, stone and other minerals.
BIDDER, SAMUEL PARKER the [younger.	3488	17th Nov. 1868	Apparatus for breaking down coal, slate, stone and other minerals.
BIÉNEZ, FAURE - - -	743	4th March 1868	Paving roads, streets or ways. (Patented by Alexander Melville Clark.)
BIGELOW, ERASTUS BRIGHAM	1661	20th May 1868	Power looms. (Patented by George Tomlinson Bousfield.)
BIGG, HENRY HEATHER -	3973	30th Dec. 1868	Construction of artificial legs.
BIGGIN, THOMAS - - -	3760	10th Dec. 1868	Improvements in the manufacture of spanners and wrenches in cast steel, for engineering and all other purposes, and in the machinery and apparatus employed in such manufacture.
BIGGS, JOHN HOWARD WOR- [THINGTON.	1529	9th May 1868	Apparatus for selecting warp threads and for drawing them through the eyes of harness and through reeds.
BIGGS, JOHN HOWARD WOR- [THINGTON.	3447	13th Nov. 1868	Improved arrangements of warps in sizing or dressing machines and looms, and in the machinery or apparatus connected therewith.
BILLINGTON, EDWARD - -	1621	18th May 1868	Improvements in apparatus for conveying and regulating the pressure of steam passing through pipes or other vessels, and taking off condensed water from the same. (Partly communicated by Bernard August Schaeffer and Christian Frederick Budenburg.)
BILLUPS, JONATHAN EDWIN -	437	8th Feb. 1868	Improvements in separating powders of sulphate of barytes of various degrees of fineness, thus obtaining an exceedingly fine powder, and in the separating apparatus adopted for the same.
BING, LOUIS - - - -	1297	21st April 1868	An improved mode of and apparatus for ascertaining the actinic power of light.
BINKO, HENRY BOCK - -	2541	14th Aug. 1868	Treatment and preparation of indigo for laundry and other like purposes.
BINNS, LEEDHAM - - -	1438	2nd May 1868	Looms for weaving.
BIRCH, JOHN - - - -	3240	23rd Oct. 1868	Certain improvements in the method or process of casting Bessemer steel ingots, and in apparatus connected therewith.
BIRCHALL, ARTHUR MILSON -	637	25th Feb. 1868	Improvements in the manufacture of twist tobacco and the making of the same into rolls, and in the machinery or apparatus employed therein.
BIRD, JAMES - - - -	248	23rd Jan. 1868	Construction of furnaces, stoves and fire-places.
BIRKE, JOHN - - - -	2656	26th Aug. 1868	Improvements in the manufacture of woven fabrics and in apparatus employed therein.
BISCHOP, GUSTAV, junior -	2805	11th Sept. 1868	Precipitation and separation of copper from its solutions.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BISSETT, THOMAS - - -	719	3rd March 1868	Reaping and mowing machines.
BLACK, WALTER SHAW - -	2100	1st July 1868	Machinery for twisting tobacco.
BLACKBURN, ALEXANDER BE- [WICKE.	1234	14th April 1868	Improvements in rafts or stages to carry passengers, merchandize, articles and things, at sea and other navigable places, and in the means of propelling the same.
BLACKBURN, BEWICKE - -	1234	14th April 1868	Improvements in rafts or stages to carry passengers, merchandize, articles and things, at sea and other navigable places, and in the means of propelling the same.
BLAIR, THOMAS SHOENBERGER	2968	28th Sept. 1868	Improvements in converting cast iron into wrought iron, and in uniting oxides and fluxes with molten cast iron. (Patented by Charles Denton Abel.)
BLAIR, THOMAS SHOENBERGER	3565	23rd Nov. 1868	Improvements in converting cast iron into wrought iron, and in uniting oxides, fluxes and other substances with molten cast iron. (Patented by Charles Denton Abel.)
BLAIR, THOMAS SHOENBERGER	3631	28th Nov. 1868	Manufacture of steel. (Patented by Charles Denton Abel.)
BLAKE, DAVID - - -	3651	30th Nov. 1868	Producing imitations of and substitutes for wood, ivory, stone and other hard substances.. (Patented by John Henry Johnson.)
BLAKE, LYMAN REED - -	198	20th Jan. 1868	Machinery for nailing or pegging the soles of boots and shoes to their vamps or uppers. (Patented by William Robert Lake.)
BLAKE, LYMAN REED - -	780	5th March 1868	Mechanism for preparing soles and for sewing the same upon boots and shoes. (Patented by William Robert Lake.)
BLAKEY, JOHN - - -	2687	19th Sept. 1868	Improved apparatus for stretching and repairing boots and shoes.
BLAKEY, WRAY - - -	3795	14th Dec. 1868	An improved pocket tobacco cutting machine.
BLAMIERES, THOMAS HOWARD	1571	14th May 1868	Means or apparatus employed in the process of manufacturing wadding or felted fabrics.
BLANC, ARMAND JULES LE -	2167	8th July 1868	Manufacture of belts, bands or ropes for the transmission of power for driving machinery and for other purposes.
BLANCHARD, LUCIEN HENRI -	3390	7th Nov. 1868	Improvements in the separation of solid matters contained in liquids, and in apparatus for the same. (Patented by Alexander Melville Clark.)
BLANCHARD, LUCIEN HENRI -	3714	5th Dec. 1868	A new or improved chemical compound for the disinfection and treatment of sewage and other liquid and solid matters. (Patented by Alexander Melville Clark.)
BLANCHARD, NATHAN W. -	905	17th March 1868	An improved substitute for hair stuffing, and mode of manufacturing the same from vegetable fibres. (Patented by William Robert Lake.)
BLANCHARD, NATHAN W. -	2818	14th Sept. 1868	An improved substitute for hair stuffing, and mode of manufacturing the same from vegetable fibres. (Patented by William Robert Lake.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BLANCHARD, REGIS - -	3537	21st Nov. 1868	Improvements in the treatment and preparation of yarns or threads for weaving, sewing or other purposes, and in the machinery employed for this purpose. (Patented by John Garrett Tongue.)
BLANCHFLOWER, TIMOTHY [COLEMAN.	2083	26th June 1868	An improved mode of packing preserved meats and fruits for sale.
BLANCHON, FRANÇOIS AR- [MAND.	3308	29th Oct. 1868	Tops.
BLAND, WILLIAM - - -	3082	8th Oct. 1868	Looms for weaving.
BLEZARD, RICHARD - -	544	19th Feb. 1868	Machines for cleaning wheat and other grain
BLINKHORN, WILLIAM JOHN	30	4th Jan. 1868	Improvements in the manufacture of snuffless dip candles and in apparatus employed therein.
BLOCH, BENOIT - - -	1424	1st May 1868	The production of a new or improved colouring matter from aniline. (Patented by Charles Denton Abel.)
BLOCKSAGE, THOMAS - -	657	27th Feb. 1868	Certain improvements in the construction of boilers or steam generators.
BLOEM, GUSTAV - - -	3433	12th Nov. 1868	Improvements in breech-loading fire-arms, and in cartridges to be used therewith and with other descriptions of breech-loading fire-arms. (Patented by Henry Henkel.)
BLOMFIELD, JOSEPH - -	2093	30th June 1868	Improvements in stands or tables especially applicable for sewing-machines.
BLUMFELD, LOUIS - - -	809	9th March 1868	Construction of cigar-tubes and pipes when used in combination. (Communicated by Alois Christalon.)
BLYTH, CHARLES - - -	489	13th Feb. 1868	Machinery and apparatus for measuring and cutting cloth for bags and for other purposes.
BOARDMAN, WILLIAM EDWIN	1120	2nd April 1868	A new and useful improved steam and water packing for use in packing stuffing-boxes of steam-engines, making joints and other like purposes. (Communicated by Mr. William C. Selden.)
BOBY, ROBERT - - -	1242	15th April 1868	Construction of horse-rakes.
BOBY, ROBERT - - -	3936	24th Dec. 1868	Construction of floors for malt kilns or drying rooms.
BOCHKOLTZ, AUGUSTE - -	182	18th Jan. 1868	An improved mechanical arrangement to be employed in connection with self-acting valves.
BOCHKOLTZ, AUGUSTE - -	2323	24th July 1868	Improvements in self-acting valves by the use of compressed air.
BOCK JOHAN CHRISTIAN [EMIL.	2647	25th Aug. 1868	A process for the direct decomposition of neutral fatty substances, for the manufacture of stearine. (Patented by Adolph Emil Borgen.)
BODMER, JOHN JAMES - -	615	24th Feb. 1868	Improvements in the manufacture of artificial stone and in machinery to be employed therein.
BODMER, LOUIS RUDOLPH -	615	24th Feb. 1868	Improvements in the manufacture of artificial stone and in machinery to be employed therein.
BODMER, RUDOLPH - -	615	24th Feb. 1868	Improvements in the manufacture of artificial stone and in machinery to be employed therein.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOGGETT, WILLIAM - -	609	24th Feb. 1868	Manufacture and application of elastic goods or fabrics.
BOGGETT, WILLIAM - -	1065	28th March 1868	Boots and shoes.
BOGGETT, WILLIAM - -	2920	23rd Sept. 1868	Application of elastic fillets, cords or bands to boots and shoes and other articles of wearing-apparel.
BOLTON, EDWARD - - -	342	31st Jan. 1868	Certain improvements in the manufacture of gunpowder and similar explosive compounds.
BOLTON, FRANCIS JOHN -	1667	21st May 1868	Improvements in ordnance and in wads to be used therewith.
BOLTON, JAMES - - -	3750	9th Dec. 1868	Apparatus for burning animal charcoal.
BOLTON, JOSEPH HOLROYD -	1306	22nd April 1868	Certain improvements in machinery or apparatus for sizeing and drying warps or yarns of cotton or other fibrous substances.
BOMEISLER, EDWIN LOUIS -	2485	8th Aug. 1868	An improved construction of steam-engine governor. (Patented by Alfred Vincent Newton.)
BOMEISLER, EDWIN LOUIS -	2497	10th Aug. 1868	Automatic indicators for steam-boilers. (Patented by Alfred Vincent Newton.)
BONELL THOMAS - - -	2269	20th July 1868	Slide valves of steam-engines.
BONIWELL, RUFUS MARTIN -	3485	16th Nov. 1868	Certain improvements in the construction of river boats, and in the machinery attached to the same for propelling them by manual power.
BONNALL, JOHN - - -	2001	20th June 1868	Improvements in thrashing machines and in other machinery to be used therewith.
BONNALL, JOHN - - -	2233	15th July 1868	Drills for distributing corn, seed, manure and water.
BONNATERRE, JOSEPH FRAN- ÇOIS.	533	18th Feb. 1868	An improved vegetable extract for culinary purposes. (Patented by Alexander Melville Clark.)
BONNEAU, JOSEPH - - -	723	3rd March 1868	Machines for making nails. (Patented by William Spence.)
BONNET, PIERRE - - -	180	18th Jan. 1868	Ribbon looms. (Patented by Henri Adrien Bonneville.)
BONNEVILLE, HENRI ADRIEN	179	18th Jan. 1868	A new and improved fly cover for protecting stitched books. (Communicated by Charles François Auguste Viscount De Brettes-Thurin.)
BONNEVILLE, HENRI ADRIEN	180	18th Jan. 1868	Ribbon looms. (Communicated by Pierre Bonnet and Antoine Fargère.)
BONNEVILLE, HENRI ADRIEN	181	18th Jan. 1868	Ribbon looms. (Communicated by Christopher Balay.)
BONNEVILLE, HENRI ADRIEN	287	28th Jan. 1868	A new mode of preserving eggs and improved apparatus connected therewith. (Communicated by Charles Hermann Römcke and Arthur Yvernault.)
BONNEVILLE, HENRI ADRIEN	288	28th Jan. 1868	Ribbon looms. (Communicated by Francisque David.)
BONNEVILLE, HENRI ADRIEN	339	31st Jan. 1868	A new and improved advertising vehicle. (Communicated by Marie Elisabeth Gihaut.)



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BONNEVILLE, HENRI ADRIEN	496	14th Feb. 1868	Certain improvements in compound of aniline colours. (Communicated by Emil Zinssmann.)
BONNEVILLE, HENRI ADRIEN	497	14th Feb. 1868	Moderator or carcel lamps. (Communicated by Guillaume Auguste Richner.)
BONNEVILLE, HENRI ADRIEN	886	16th March 1868	Jacquart looms. (Communicated by Pierre Legrand.)
BONNEVILLE, HENRI ADRIEN	887	16th March 1868	Permanent way of railroads. (Communicated by Achille Philippe Cyprien Legrand.)
BONNEVILLE, HENRI ADRIEN	888	16th March 1868	New and improved apparatus for manufacturing cartridges. (Communicated by Jean Baptiste Lainé and Louis Ernest Lecomte.)
BONNEVILLE, HENRI ADRIEN	1008	25th March 1868	Improvements in apparatus for exhibiting advertisements, and in apparatus for distributing prospectuses, cards, circulars and other papers. (Communicated by Charles Cardot and Stanislas Louis Alexandre Berthier.)
BONNEVILLE, HENRI ADRIEN	1434	2nd May 1868	New or improved apparatus for measuring and registering the flow of liquids. (Communicated by Jean Joseph Barretto and Antoine Joaquim Barretto.)
BONNEVILLE, HENRI ADRIEN	1435	2nd May 1868	Apparatus for propelling vessels. (Communicated by Edouard Maître.)
BONNEVILLE, HENRI ADRIEN	1496	7th May 1868	Spring mattresses and seats. (Communicated by Joanny Laurent.)
BONNEVILLE, HENRI ADRIEN	1743	27th May 1868	Certain improvements in the permanent way of railways. (Communicated by Louis Van der Smissen.)
BONNEVILLE, HENRI ADRIEN	1744	27th May 1868	Breech-loading fire-arms. (Communicated by Salvatore Carcano.)
BONNEVILLE, HENRI ADRIEN	1779	30th May 1868	Machines for stitching and sewing the edges of button, eyelet and other holes, in cloth, leather and other materials, and for stitching or sewing the edges of cloth, leather and other materials generally. (Communicated by Elliot G Storke.)
BONNEVILLE, HENRI ADRIEN	1845	5th June 1868	A new and improved process for feeding sugar factories or distilleries. (Communicated by Joseph Linard.)
BONNEVILLE, HENRI ADRIEN	1859	6th June 1868	A new and improved apparatus for levelling and measuring distances, altitudes and angles. (Communicated by Charles Auguste Constantin Eckhold.)
BONNEVILLE, HENRI ADRIEN	1896	10th June 1868	A new and improved apparatus for shuffling and dealing cards. (Communicated by Honoré Etienne Piquet.)
BONNEVILLE, HENRI ADRIEN	2019	23rd June 1868	Certain improvements in machinery for carding and spinning wool and other fibrous materials. (Communicated by Célestin Martin.)
BONNEVILLE, HENRI ADRIEN	2440	4th Aug. 1868	A new and improved process of preserving meat, and the apparatus connected therewith. (Communicated by Wilhelm Wiesmann.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BONNEVILLE, HENRI ADRIEN	2441	4th Aug. 1868	Improvements in the process of dyeing textile materials and in the apparatus connected therewith. (Communicated by César Corron.)
BONNEVILLE, HENRI ADRIEN	2706	2nd Sept. 1868	A new and improved process for regenerating certain alimentary substances and improvements in apparatus connected therewith. (Communicated by Alphonse Louvel.)
BONNEVILLE, HENRI ADRIEN	3094	9th Oct. 1868	Pumps. (Communicated by Philippe Trichet.)
BONNEVILLE, HENRI ADRIEN	3155	15th Oct. 1868	A new and useful improvement in elastic moulds. (Communicated by Thomas Taylor, Edmund Pendleton Rogers and Miers Coryell.)
BONNEVILLE, HENRI ADRIEN	3198	20th Oct. 1868	Safety lamps for miners. (Communicated by Richard Werdermann.)
BONNEVILLE, HENRI ADRIEN	3475	16th Nov. 1868	Improvements in the shape and casting of missiles, and in the apparatus connected therewith. (Communicated by the Marquis Ernest de Fornari.)
BONNEVILLE, HENRI ADRIEN	3489	17th Nov. 1868	A new and improved instrument for prognosticating the weather. (Communicated by Jules Malacrida and Pierre Boudet.)
BONNEVILLE, HENRI ADRIEN	3652	1st Dec. 1868	Improvements in the manufacture of mineral teeth and in the method of fixing such mineral teeth to the dental piece. (Communicated by Jean Baptiste Abel Duchesne.)
BONNEVILLE, HENRI ADRIEN	3729	8th Dec. 1868	Spinning looms. (Communicated by William Gilpin.)
BONNEVILLE, HENRI ADRIEN	3759	10th Dec. 1868	A new and improved apparatus for measuring distances, altitudes and angles. (Communicated by Charles Auguste Constantin Eckhold.)
BONNEVILLE, HENRI ADRIEN	3804	15th Dec. 1868	Improvements in the production of motive-power and in the apparatus connected therewith. (Communicated by Lars Albert Leonard Söderström.)
BONNEVILLE, HENRI ADRIEN	3976	31st Dec. 1868	A new and improved apparatus for drying and growing malt and all other grains, fruits or vegetables. (Communicated by Joseph Gecmen.)
BONSALL, STERLING - -	269	25th Jan. 1868	A new or improved bell pull for door bells. (Patented by Alexander Charles Montague Prince.)
BONSALL, STERLING - -	2345	25th July 1868	A new or improved bell pull for door bells. (Patented by Alexander Charles Montague Prince.)
BOORMAN, JOHN MARCUS -	217	21st Jan. 1868	Rotary steam and other engines. (Patented by William Edward Newton.)
BOORMAN, JOHN MARCUS -	1262	17th April 1868	Improved machinery for gathering hay and other crops from the ground. (Patented by Alfred Vincent Newton.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOORMAN, JOHN MARCUS -	1732	26th May 1868	Rotary steam and other engines. (Patented by William Edward Newton.)
BOOTH, ALLEN - - -	2925	23rd Sept. 1868	Sewing-machines.
BOOTH, JAMES - - -	1671	21st May 1868	Fastenings for bags of paper, linen or other flexible materials.
BOOTH, JEREMIAH - - -	1961	16th June 1868	Means or apparatus for the cutting or dressing of stone.
BOOTH, JOHN - - -	1961	16th June 1868	Means or apparatus for the cutting or dressing of stone.
BOOTH, JOHN - - -	2216	14th July 1868	Mills for grinding bones, grain and other materials.
BOOTH, JOSEPH - - -	1400	29th April 1868	Manufacture of fabrics in twist lace machines.
BOOTH, JOSEPH - - -	1961	16th June 1868	Means or apparatus for the cutting or dressing of stone.
BOOTH, MARY LOUISA - -	1802	15th May 1868	An improved mode of embalming or preserving dead bodies. (Patented by William Robert Lake.)
BOOTHBY, WILLIAM ROBINSON	991	24th March 1868	An improved combination of mechanism to produce rotatory motion in engines.
BOOTHROYD, JAMES - -	144	16th Jan. 1868	Mule spinning machinery.
BORGEN, ADOLPH EMIL - -	401	6th Feb. 1868	The preparation of "Phosphor free" matches made either with or without paraffin, stearine or wax, without the use of phosphor, and without requiring any prepared surface in order to obtain an instant light. (Communicated by Ole Christian Green.)
BORGEN, ADOLPH EMIL - -	2647	25th Aug. 1868	A process for the direct decomposition of neutral fatty substances, for the manufacture of stearine. (Communicated by Johan Christian August Bock.)
BOSSERT, FRIEDRICH WILHELM	2553	15th Aug. 1868	A new or improved apparatus or fountain for dispersing or throwing liquids. (Patented by Henry Reissmann.)
BOTTOMLEY, HENRY - -	2365	28th July 1868	Looms for weaving.
BOTTOMLEY, HENRY - -	3855	18th Dec. 1868	Apparatus employed in weaving.
BOTTOMLEY, JOHN - - -	1392	28th April 1868	Improvements in umbrellas and parasols, and in appliances to be used in connection therewith.
BOTTOMLEY, WILLIAM - -	242	23rd Jan. 1868	Milling machinery.
BOUCHER, ALEXANDRE DÉSIRÉ [EUGÈNE.]	1533	11th May 1868	An improved process of moulding hollow metallic pieces provided with a single aperture, such as shells, hollow balls, door knobs, and all articles of the same description.
BOUCHER, ALEXANDRE DÉSIRÉ [EUGÈNE.]	1534	11th May 1868	Applying enamelled cast iron to supersede china and crystal in certain household articles of furniture and fixtures, such as door knobs, heads of handrails and other similar articles.
BOUDET, PIERRE - - -	3489	17th Nov. 1868	A new and improved instrument for prognosticating the weather. (Patented by Henri Adrien Bonneville.)
BOUDINOT, ALFRED - -	2808	11th Sept. 1868	An improved mode of annealing gauze wire. (Patented by Edward Thomas Hughes.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOUILHET, CHARLES HENRI -	3828	16th Dec. 1868	Improved processes for inlaying metals. (Patented by Alexander Melville Clark.)
BOULTON, MATTHEW PIERS [WATT.]	392	5th Feb. 1868	Improvements in propulsion and in aerial locomotion, and in apparatus connected therewith, parts of which are applicable to projectiles and to boilers.
BOULTON, MATTHEW PIERS [WATT.]	1005	24th March 1868	Means and apparatus for effecting aerial locomotion.
BOULTON, MATTHEW PIERS [WATT.]	1233	14th April 1868	Improvements in apparatus for receiving motion or energy from fluids and for imparting it to them, and in apparatus to be used for propulsion or in connection therewith.
BOULTON, MATTHEW PIERS [WATT.]	1988	19th June 1868	Apparatus for obtaining motive-power by the combustion of inflammable aeriform fluids.
BOULTON, MATTHEW PIERS [WATT.]	3694	4th Dec. 1868	Rotary propellers, pumps and fans.
BOULTON, SAMUEL BAGSTER -	1552	13th May 1868	Improvements in the means and apparatus for landing, loading and conveying timber in timber yards and saw mills, as also in apparatus for facilitating the sawing of such timber.
BOULTON, WILLIAM - -	3274	26th Oct. 1868	Method of and machinery or apparatus for manufacturing oval and irregular shaped articles of pottery.
BOULTON, WILLIAM STAPLES	962	21st March 1868	Lawn mowers.
BOUNAZ, ANTOINE - -	3590	25th Nov. 1868	Sewing or embroidering machines. (Patented by William Edward Gedge.)
BOURDON, ARSÈNE - -	827	10th March 1868	Looms for weaving.
BOURLIER, AUGUSTE - -	2188	10th July 1868	Filling the spaces between the beams or joists of iron floors and ceilings. (Patented by George Davies.)
BOURNE, JOHN - - -	844	12th March 1868	Auxiliary propulsion.
BOURNE, JOHN - - -	1878	9th June 1868	Improvements in the production and application of motive-power, parts of which improvements are also applicable to certain other purposes.
BOURNE, JOHN - - -	3594	25th Nov. 1868	Improvements in the production of heat and in the generation and application of motive-power derived therefrom.
BOUSFIELD, EDWARD TENNEY	430	8th Feb. 1868	Construction of steam-boilers.
BOUSFIELD, EDWARD TENNEY	3468	14th Nov. 1868	Construction of tubular steam-boilers.
BOUSFIELD, GEORGE TOMLIN- [SON.]	219	21st Jan. 1868	Liberating the coloring matter of madder and similar vegetable substances from the ligneous matter or cellulose with which it is combined in the plant. (Communicated by Alfred Paraf.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	634	25th Feb. 1868	Apparatus for raising and forcing water and for feeding steam-boilers. (Communicated by Alexander Friedman.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	1198	9th April 1868	Improvements in dies and in machinery for cutting dies and taps. (Communicated by Benjamin Bee.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOUSFIELD, GEORGE TOMLIN- [SON.	1384	28th April 1868	An improved manufacture of hair seating, and for improvements in the mode of seaming or joining hair seating and other woven fabrics with a hair face, and strengthening the goods and facilitating the upholstering of the same. (Communicated by Charles Bradley.)
BOUSFIELD, GEORGE TOMLIN- [SON.	1661	20th May 1868	Power looms. (Communicated by Erastus Brigham Bigelow.)
BOUSFIELD, GEORGE TOMLIN- [SON.	1777	29th May 1868	Improvements in plating spoons and other articles with a coating of metal, and in apparatus employed therein. (Communicated by Marshall Forbes.)
BOUSFIELD, GEORGE TOMLIN- [SON.	2049	25th June 1868	Fire-arms and cartridges. (Communicated by Ambjorn Pierre Le Comte Sparre.)
BOUSFIELD, GEORGE TOMLIN- [SON.	2434	1st Aug. 1868	Bindings for skirts. (Communicated by Thomas de Forest.)
BOUSFIELD, GEORGE TOMLIN- [SON.	3007	1st Oct. 1868	Improvements in the manufacture of tufted or pile fabrics and in machinery for manufacturing the same. (Communicated by John Thomas Waring.)
BOUSFIELD, GEORGE TOMLIN- [SON.	3233	22nd Oct. 1868	Machinery for propelling water craft. (Communicated by Edwin Sabine Renwick.)
BOUSFIELD, GEORGE TOMLIN- [SON.	3393	7th Nov. 1868	Cooling and barring soap. (Communicated by Silas Divine.)
BOUSFIELD, GEORGE TOMLIN- [SON.	3941	24th Dec. 1868	Steam valves and their adjuncts. (Communicated by Edward Halliday Ashcroft.)
BOUSFIELD, GEORGE TOMLIN- [SON.	3959	29th Dec. 1868	Extracting the coloring matter of madder root from the ligneous matter of the plant. (Communicated by Alfred Paraf.)
BOUTEMY, AMAND - - -	1844	5th June 1868	A new or improved stopping motion for spinning machinery. (Patented by Charles Denton Abel.)
BOVY, LAURENT - - -	1054	27th March 1868	Breech-loading fire-arms. (Patented by Clinton Edgcumbe Brooman.)
BOVY, LAURENT - - -	2942	25th Sept. 1868	Breech-loading fire-arms. (Patented by Clinton Edgcumbe Brooman.)
BOWDEN, GEORGE - - -	1510	8th May 1868	Apparatus or means for protecting the points of brushes and pencils.
BOWDEN, JOHN - - -	299	28th Jan. 1868	Bellows applicable especially to portable and other forges. (Patented by Robert James Moser.)
BOWDEN, JOSEPH - - -	3548	23rd Nov. 1868	Carding-engines for carding cotton and other fibrous materials.
BOWDEN, WALTER - - -	299	28th Jan. 1868	Bellows applicable especially to portable and other forges. (Patented by Robert James Moser.)
BOWEN, SAMUEL - - -	2004	20th June 1868	Machinery for cutting or worming screws.
BOWER, GEORGE - - -	2091	30th June 1868	Boilers for heating purposes.
BOWER, GEORGE - - -	2808	11th Sept. 1868	Gas-engines.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOWKER, JONATHAN - -	2069	27th June 1868	A slip or apparatus for raising, placing or replacing on the line of rails or metals, engines, tenders, carriages, trucks or other conveyances used thereon.
BOWLER, JOHN COBB - -	1518	9th May 1868	Certain improvements in castors or similar rolling supports for furniture.
BOWLER, JOHN COBB - -	3474	18th Nov. 1868	Construction of castors.
BOWLEY, ROBERT KANZOW -	1694	22nd May 1868	Improvements in the construction and arrangement of floral devices and in the apparatus employed therein. (Communicated by David Price.)
BOWREN, JAMES - - -	2310	23rd July 1868	Manufacture of iron and steel.
BOYCE, JAMES EDWARD - -	1442	2nd May 1868	Umbrellas and parasols.
BOYCE, LAWSON - - -	660	27th Feb. 1868	An improved mode of raising and lowering Venetian blinds.
BOYD, JOHN - - - -	262	25th Jan. 1868	Improvements in winding machines and in pirns or yarn holders and shuttles, a part of which improvements is also applicable to other machines requiring varying motion.
BOYD, THOMAS ALEXANDER -	262	25th Jan. 1868	Improvements in winding machines and in pirns or yarn holders and shuttles, a part of which improvements is also applicable to other machines requiring varying motion.
BOYENVAL, FRANÇOIS EUGÈNE	2334	24th July 1868	Improvements in the manufacture of cast and wrought iron and steel, and in the furnaces employed therefor. (Patented by John Henry Johnson.)
BOYER, ACHILLE BARTHÉLEMY	127	15th Jan. 1868	Construction of aerial cradles.
BOYLE, ARTHUR - - -	3875	19th Dec. 1868	Machinery to be employed in the manufacture and testing of the stretchers and ribs of umbrellas and parasols.
BOYMAN, RICHARD BOYMAN -	1881	9th June 1868	Improvements in aerial navigation and in the machinery for the same.
BRABY, FREDERICK - -	2067	27th June 1868	Improvements in the extrication and condensation of ammonia, and in the manufacture of ammoniacal salts.
BRABY, FREDERICK - -	2588	19th Aug. 1868	Treating and utilizing waste sulphate of iron solution arising from the cleansing of iron surfaces in the manufacture of tin plates.
BRADBROOK, JAMES - -	2217	14th July 1868	Apparatus to be used in book-binding.
BRADBURY, GEORGE FRANCIS -	408	6th Feb. 1868	Improvements in or applicable to certain sewing-machines. (Communicated by Thomas Antony Macaulay.)
BRADBURY, GEORGE FRANCIS -	2568	17th Aug. 1868	Sewing-machines. (Partly communicated by Auguste Serveau.)
BRADBURY, HERVEY - -	2460	6th Aug. 1868	Looms for weaving.
BRADFORD, CHARLES KEMPTON	3469	14th Nov. 1868	Velocipedes.
BRADFORD, THOMAS - -	1264	18th April 1868	Certain improvements in machinery or apparatus to be employed for churning, which is also applicable for washing textile fabrics and mixing liquids.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BRADLEY, CHARLES - -	1884	28th April 1868	An improved manufacture of hair seating, and for improvements in the mode of seaming or joining hair seating and other woven fabrics with a hair face, and strengthening the goods and facilitating the upholstering of the same. (Patented by George Tomlinson Bousfield.)
BRADSHAW, CHARLES WILLIAM	2295	22nd July 1868	Coupling hose for steam and fire engines, gas and water pipes, hydrants and other similar purposes.
BRADY, DANIEL CHARLES [ELLIOTT.	2453	5th Aug. 1868	Manufacture of iron and steel. (Patented by Alfred Vincent Newton.)
BRADY, FRANCIS - - -	2835	15th Sept. 1868	Improvements in sweeping machines and in excavating machines.
BRAHAM, ABRAHAM - -	1229	14th April 1868	Certain improvements in the manufacture of hats or coverings for the head, called "Sou Wester's."
BRAHAM, LEWIS - - -	1229	14th April 1868	Certain improvements in the manufacture of hats or coverings for the head, called "Sou Wester's."
BRAILSFORD, WILLIAM - -	3126	12th Oct. 1868	Improvements in the manufacture of lace made on bobbin net or twist lace machines, and in the machinery or apparatus employed therein.
BRAKELL, CHRISTOPHER -	410	6th Feb. 1868	Apparatus for measuring fluids.
BRAMPTON, FREDERICK -	1041	26th March 1868	Letter clips, bill files and other similar clips or suspenders.
BRAMPTON, FREDERICK -	1674	21st May 1868	Letter clips, bill files and other similar clips or suspenders.
BRANCH, JOSEPH WILD -	972	23rd March 1868	Metal ties or bands for securing bales of cotton or other substance. (Patented by William Robert Lake.)
BRANCH, JOSEPH WILD -	981	23rd March 1868	Metal ties or bands for securing bales of cotton or other substance. (Patented by William Robert Lake.)
BRANDON, ALEXANDER [HORACE.	519	17th Feb. 1868	Breech-loading fire-arms and cartridges. (Communicated by Benjamin B. Hotchkiss.)
BRANDON, ALEXANDER [HORACE.	2062	26th June 1868	Metallic cartridge shells and heads. (Communicated by Henry Augustus Chapin and Charles William May.)
BRANDON, ALEXANDER [HORACE.	2064	26th June 1868	Machinery for spinning hemp and other textile fabrics. (Communicated by William Sparks Thomson.)
BRANDON, ALEXANDER [HORACE.	2981	29th Sept. 1868	An improved watch case spring. (Communicated by Charles William May.)
BRANDWOOD, JAMES - -	2868	17th Sept. 1868	Certain improvements in furnaces applicable to boilers for generating steam or other purposes.
BRASIER, EDWARD - - -	1188	8th April 1868	Machinery and processes for scutching, dressing, cleaning, treating, and preparing flax, hemp and other vegetable fibrous materials, and the tow of the same.
BRAUN, MAX - - - -	1146	4th April 1868	Apparatus for washing and separating ores and other materials. (Patented by George Davies.)
BRAUN, MAX - - - -	3971	30th Dec. 1868	Improvements in separating ores and other materials and in apparatus therefor. (Patented by George Davies.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BREALEY, WILLIAM WOOD- [HOUSE.]	1765	28th May 1868	Improvements in steam generators and in apparatus for heating the feed water therefor.
BREEDEN, JOSEPH - - -	3896	21st Dec. 1868	Taps or valves for liquids, gases and vapours.
BREMME, GUSTAV ALBRECHT [CARL.]	2971	28th Sept. 1868	Improvements in machinery for untwisting strands and other twisted or spun materials, for picking oakum, dressing fibres and other analogous purposes.
BREMME, GUSTAV ALBRECHT [CARL.]	3787	12th Dec. 1868	Improvements in machinery for breaking and softening flax and other fibrous materials, which improvements are applicable to calendering rollers and other purposes where the same kind of reciprocating rotary motion can be usefully adopted.
BRETT, ROBERT - - -	2279	20th July 1868	Improvements in engines or machines for driving drums used with apparatus for cultivating land by steam power, in drums for the same, and in apparatus for moving the machines from place to place.
BRETTES-THURIN, CHARLES FRANCOIS AUGUSTE VIS- COUNT DE.	179	18th Jan. 1868	A new and improved fly cover for protecting stitched books. (Patented by Henri Adrien Bonneville.)
BREUIL, LE COMTE HENRY [DE LA TOUR DU.]	1500	7th May 1868	An improved mode of renovating files by an electro-chemical process. (Patented by Arthur Charles Henderson.)
BRICKNELL, AUGUSTUS LEA -	3363	5th Nov. 1868	Apparatus applicable as a rotary engine, pump and water meter.
BRIDGETT, GEORGE ALFRED -	577	21st Feb. 1868	Improvements in steam-engine slide valves, valve-gear and governors, parts of which are applicable to other purposes.
BRIERLEY, JAMES MAKINSON -	3212	20th Oct. 1868	Improvements in fastenings for stays, corsets and bodices, which improvements are also applicable to other articles of wearing-apparel.
BRIERLEY, JOHN WINTER- [BOTTOM.]	3853	18th Dec. 1868	Machinery or apparatus for forging nuts.
BRIERLEY, JOSEPH - - -	3868	19th Dec. 1868	Improved apparatus for facilitating the ventilation of sewers and drains and the discharge of noxious gases therefrom, and for preventing the ingress of such gases to houses or buildings.
BRIGGS, JAMES - - -	2051	26th June 1868	Machinery and apparatus for finishing yarns made of wool and other fibrous substances.
BRIGGS, JOHN - - -	2574	18th Aug. 1868	Machinery for cutting shives, bungs, corks, spiles and vent or other pegs.
BRIGGS, JOSEPH - - -	2043	25th June 1868	Constructing ingot moulds.
BRIGGS, THOMAS - - -	1542	12th May 1868	Connecting the ends of metal bands for securing bales.
BRIGGS, THOMAS - - -	2974	29th Sept. 1868	Improvements in connecting the ends of metal bands for securing bales, and in apparatus connected therewith.
BRIGGS, TIMOTHY - - -	1607	16th May 1868	Machinery for communicating and signalling between passengers, guards and drivers of railway trains.
BRIGHAM, JOHN - - -	750	4th March 1868	Reaping and mowing machines or harvesting machines.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BRIGHAM, JOHN - - -	2341	25th July 1868	Drill rollers and seed sowers combined or as separate machines.
BRIGHT, RICHARD AUSTIN, [junr.	3584	25th Nov. 1868	Machinery for manufacturing cigars. (Patented by William Robert Lake.)
BRIN, ARTHUR - - -	465	11th Feb. 1868	Certain improvements in apparatus for generating and applying gas from air and hydrocarbon fluids, for lighting and heating purposes.
BRINDLE, HENRY - - -	403	6th Feb. 1868	Certain improvements in "shuttles" to be employed in looms for weaving.
BRINJES, JOHN FREDERICK -	3210	20th Oct. 1868	Centrifugal machinery or apparatus employed in the separation of fluid from other matters.
BRINSMEAD, HENRY - - -	218	21st Jan. 1868	Thrashing machines.
BRINSMEAD, JOHN - - -	774	6th March 1868	Construction of pianofortes.
BRISBANE, SARAH HOGAN -	3189	19th Oct. 1868	An improvement in scissors. (Patented by Bristow Hunt.)
BRISBART-GOBERT, ANTOINE [EDOUARD.	97	10th Jan. 1868	An improved self-supplying pen. (Patented by George Davies.)
BRISON, CLAUDE - - -	3515	19th Nov. 1868	Improvements in the manufacture of phosphorus and amorphous phosphorus, and in furnaces and apparatus employed for that purpose. (Patented by Charles Denton Abel.)
BRITTEN, BASHLEY - - -	855	12th March 1868	Manufacture of manure.
BRITTEN, BASHLEY - - -	3528	20th Nov. 1868	Construction of fishing rods.
BROAD, JOSEPH - - -	2515	12th Aug. 1868	Machinery, apparatus and process in the treatment of carboniferous plants and other fibrous material, for the manufacture of paper, cardboard and other similar articles.
BROADBENT, CHARLES RALPH	224	22nd Jan. 1868	Manufacture of shoes.
BROADBENT, CHARLES RALPH	865	13th March 1868	Manufacture of hats, bonnets and other similar articles.
BROADBENT, EDMUND - - -	834	11th March 1868	Machinery and apparatus for manufacturing paper bags.
BROADBENT, JOHN - - -	834	11th March 1868	Machinery and apparatus for manufacturing paper bags.
BROADBENT, JOHN FLETCHER	3095	9th Oct. 1868	An improved picker for looms for weaving.
BROADFOOT, JOHN - - -	2481	8th Aug. 1868	Waterclosets.
BROADHEAD, CHARLES - - -	1596	15th May 1868	Improved means of preventing the radiation of heat from steam pipes, cylinders and boilers.
BROCHOCKY, LE COMTE [THOMAS DE DIENHEIM.	1500	7th May 1868	An improved mode of renovating files by an electro-chemical process. (Patented by Arthur Charles Henderson.)
BROMHEAD, JOSEPH SYKES -	2822	23rd July 1868	Dry gas regulators.
BRÖNNER, JULIUS - - -	976	23rd March 1868	Construction of gas-burners.
BRÖNNER, JULIUS - - -	3324	31st Oct. 1868	An improved construction and application of shades to gas lights.
BROOK, SCIPIO - - -	3585	25th Nov. 1868	Looms for weaving.
BROOKE, OSWALD - - -	1956	16th June 1868	Healds or heddles for weaving.
BROOKE, WILLIAM - - -	435	8th Feb. 1868	Healds for weaving.
BROOKE, WILLIAM - - -	1956	16th June 1868	Healds or heddles for weaving.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOKES, WILLIAM - -	2101	1st July 1868	Rotary steam-engines. (Communicated by Leon Hamar.)
BROOKES, WILLIAM - -	2102	1st July 1868	Electro-magnetic railway breaks. (Communicated by Leon Hamar.)
BROOKES, WILLIAM - -	2103	1st July 1868	Meters for measuring water and other liquids. (Communicated by Leon Hamar.)
BROOKES, WILLIAM - -	2166	8th July 1868	Means or apparatus for evaporating and condensing liquids. (Communicated by Thomas Prosser.)
BROOKES, WILLIAM - -	3530	20th Nov. 1868	Manufacture of fabric in lace machinery. (Communicated by William Hall and George Hall.)
BROOKES, WILLIAM - -	3654	1st Dec. 1868	Means employed in the manufacture of fabric in lace machinery. (Communicated by William Hall and George Hall.)
BROOKS, SAMUEL - - -	833	11th March 1868	Machinery for preparing, spinning and doubling cotton and other fibrous substances.
BROOMAN, CLINTON EDGCUMBE	146	16th Jan. 1868	Gas-heating and cooking apparatus. (Communicated by François Alphonse Jacquet.)
BROOMAN, CLINTON EDGCUMBE	225	22nd Jan. 1868	A new or improved mode of producing a coloring matter. (Communicated by Alexandre Clavel.)
BROOMAN, CLINTON EDGCUMBE	227	22nd Jan. 1868	A new or improved mode of extracting coloring matter from madder. (Communicated by Alexandre Clavel.)
BROOMAN, CLINTON EDGCUMBE	264	25th Jan. 1868	Improvements in breech-loading fire-arms and in the manufacture of ammunition for the same. (Communicated by Charles Rochaz.)
BROOMAN, CLINTON EDGCUMBE	291	28th Jan. 1868	Manufacture of candles. (Communicated by Louis Mironde-Pickard.)
BROOMAN, CLINTON EDGCUMBE	357	3rd Feb. 1868	Steam and water valves, cocks and faucets. (Communicated by Henry Gurney Morris.)
BROOMAN, CLINTON EDGCUMBE	449	10th Feb. 1868	Combined pen and ink holders or fountain pen holders. (Communicated by Nicolas Jourdenil.)
BROOMAN, CLINTON EDGCUMBE	534	18th Feb. 1868	Breech-loading fire-arms. (Communicated by Antoine Alphonse Chassepot.)
BROOMAN, CLINTON EDGCUMBE	677	28th Feb. 1868	Manufacture of moulds for moulding glass or like material. (Communicated by Jean Baptiste Lhote.)
BROOMAN, CLINTON EDGCUMBE	793	7th March 1868	Combing machinery. (Communicated by Firmin Natalis Thuillier-Gellée.)
BROOMAN, CLINTON EDGCUMBE	974	23rd March 1868	Machinery for the manufacture of lace. (Communicated by Désiré Sival and Léon Sival.)
BROOMAN, CLINTON EDGCUMBE	1015	25th March 1868	Machinery for the manufacture of paper tubes specially intended for use in spinning machinery. (Communicated by the Society Paul Corpet and Lessieur.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOMAN, CLINTON EDGCUMBE	1054	27th March 1868	Breech-loading fire-arms. (Communicated by Laurent Bovy.)
BROOMAN, CLINTON EDGCUMBE	1206	11th April 1868	Photography. (Communicated by Augustin Marion.)
BROOMAN, CLINTON EDGCUMBE	1513	8th May 1868	Preparing zirconia and the employment of the same to develop the light of oxy-hydrogen flame. (Communicated by Cyprien Marie, Tessié du Motay and Company.)
BROOMAN, CLINTON EDGCUMBE	1536	11th May 1868	Furnaces or heating apparatus. (Communicated by Eugene Alexandre Frederic Goguel.)
BROOMAN, CLINTON EDGCUMBE	1725	26th May 1868	Decolorizing tannin juices. (Communicated by "Georges Bossiere Desport and Company.")
BROOMAN, CLINTON EDGCUMBE	1791	30th May 1868	Manufacture of central fire cartridges. (Communicated by Robert François Gosselin.)
BROOMAN, CLINTON EDGCUMBE	1831	4th June 1868	Apparatus for the manufacture or production of carbonic oxide, hydrogen and carbonated hydrogens. (Communicated by the Company or Society "Cyprien Tessié du Motay and Company.")
BROOMAN, CLINTON EDGCUMBE	1833	4th June 1868	Improvements in the manufacture or transformation of iron and steel, and in apparatus employed therein. (Communicated by the Company or Society "Cyprien Tessié du Motay and Company.")
BROOMAN, CLINTON EDGCUMBE	1894	10th June 1868	Breech-loading fire-arms. (Communicated by Ernest Gabriel Roblin.)
BROOMAN, CLINTON EDGCUMBE	2085	29th June 1868	Apparatus for bleaching or lixiviating fabrics and skeins. (Communicated by Auguste Scheurer Rott and Scheurer Rott, fils.)
BROOMAN, CLINTON EDGCUMBE	2087	29th June 1868	Manufacture of shawls and other like fabrics. (Communicated by Anthelme Pin.)
BROOMAN, CLINTON EDGCUMBE	2187	10th July 1868	An improved mode of cutting or utilizing old railway rails, and an improved construction of apparatus to be employed therefor. (Communicated by Leopold Tuskia.)
BROOMAN, CLINTON EDGCUMBE	2199	11th July 1868	Locks. (Communicated by John Dewe, George Harding and Bartholomew Lalor.)
BROOMAN, CLINTON EDGCUMBE	2305	22nd July 1868	Breech-loading fire-arms. (Communicated by Friederich Von Martin.)
BROOMAN, CLINTON EDGCUMBE	2320	23rd July 1868	Rotary steam-engines. (Communicated by Jean Vander Hiellaker.)
BROOMAN, CLINTON EDGCUMBE	2339	25th July 1868	Apparatus for drying filamentous matters, tissues and other substances. (Communicated by Louis Beck.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOMAN, CLINTON EDGCUMBE	2710	2nd Sept. 1868	An improved process for purifying or treating wool. (Communicated by Joseph Fraenkel.)
BROOMAN, CLINTON EDGCUMBE	2748	7th Sept. 1868	Apparatus or means for feeding and burning mineral oils and essences for lighting purposes. (Communicated by Hippolyte Leplay and Jules Noel.)
BROOMAN, CLINTON EDGCUMBE	2819	14th Sept. 1868	Manufacture of metallic plates or blocks particularly applicable as armour for ships, forts and other like structures. (Communicated by Eugene Frederic Goguel.)
BROOMAN, CLINTON EDGCUMBE	2913	22nd Sept. 1868	Apparatus for registering the speed of ships and vessels, and of streams. (Communicated by Armand Banard.)
BROOMAN, CLINTON EDGCUMBE	2942	25th Sept. 1868	Breech-loading fire-arms. (Communicated by Laurent Bovy.)
BROOMAN, CLINTON EDGCUMBE	3026	2nd Oct. 1868	Treatment of fatty matters in order to harden them and apply them to the manufacture of candles, soap and other uses. (Communicated by Mathias Paraf-Javal and Eugene Paraf-Javal.)
BROOMAN, CLINTON EDGCUMBE	3297	28th Oct. 1868	Condensers of steam-engines. (Communicated by S. A. Goodwin.)
BROOMAN, CLINTON EDGCUMBE	3449	13th Nov. 1868	Manufacture of hangings and coverings for walls and other decorative purposes. (Communicated by Jean Marie Lasché.)
BROOMAN, CLINTON EDGCUMBE	3508	18th Nov. 1868	An improved liquid or composition for oiling or greasing wool and other textile materials. (Communicated by Henry de la Thibaudiere.)
BROOMAN, CLINTON EDGCUMBE	3541	21st Nov. 1868	Improvements in the manufacture of gas for lighting and heating, and in apparatus employed therein. (Communicated by Jules François Lafrogne.)
BROOMAN, CLINTON EDGCUMBE	3763	10th Dec. 1868	Roofing houses or other buildings. (Communicated by Theophile Caranton.)
BROOMAN, CLINTON EDGCUMBE	3782	12th Dec. 1868	Apparatus for indicating hours and days or for giving other notifications, specially applicable to post office letter boxes. (Communicated by Isidore Rollet.)
BROOMAN, CLINTON EDGCUMBE	3796	14th Dec. 1868	Locks or fastenings for doors and other purposes. (Communicated by François Nicolas Cauchemont and François Jean Baptiste Cauchemont.)
BROOMAN, CLINTON EDGCUMBE	3811	15th Dec. 1868	Improved means or apparatus to be employed in diving or subaqueous operations. (Communicated by Cornwall Henwood and Robert Harkness Twigg.)
BROOMAN, CLINTON EDGCUMBE	3944	26th Dec. 1868	An improved portable lamp or lantern. (Communicated by Auguste Beliard and Adolphe Delaplace.)
BROQUIN, JOSEPH ANTOINE	572	20th Feb. 1868	Taps. (Patented by George Davies.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROTHERHOOD, PETER - -	1254	17th April 1868	Improved apparatus for refrigerating or cooling worts and other liquids.
BROTHERHOOD, PETER - -	2408	31st July 1868	Apparatus for cooling, heating or tempering fluids.
BROUGHTON, WILLIAM - -	1869	6th June 1868	Kitchen ranges.
BROUGHTON, WILLIAM - -	3379	6th Nov. 1868	Kitchen ranges.
BROWN, ANDREW BETTS - -	220	21st Jan. 1868	Actuating the valves of engines worked by steam or other fluid.
BROWN, BATEMAN - - -	2024	23rd June 1868	An improved staff or instrument to be used to ascertain the irregularities in the surfaces of millstones, with a view to their correction.
BROWN, CHARLES - - -	1843	24th April 1868	Improvements in apparatus for baking, also applicable to hot pressing and to other heating, and to cooling purposes.
BROWN, CHARLES - - -	3536	21st Nov. 1868	An improved mode of and means for preparing and baling chopped hay and straw. <i>(Patented by William Robert Lake.)</i>
BROWN, CHARLES WILLIAMS -	206	21st Jan. 1868	Construction of truncheons used by police and other constables and persons.
BROWN, EDWARD L. - -	1849	5th June 1868	Manufacture of metal castings. <i>(Patented by Alexander Prince.)</i>
BROWN, EDWIN ORMOND -	3115	10th Oct. 1868	Mode of and apparatus for firing explosive compounds.
BROWN, GEORGE - - -	721	3rd March 1868	Signal apparatus to be used in railway passenger trains.
BROWN, GEORGE STANLEY -	3636	28th Nov. 1868	Improvements in means or apparatus for communicating between the passengers, guard and driver of a railway train, and for signalling the speed at which a train is travelling.
BROWN, JEREMIAH - - -	2501	11th Aug. 1868	Improvements in rolling iron and steel, and in machinery connected therewith.
BROWN, JOHN - - -	298	28th Jan. 1868	Machinery for cutting or slicing wood, tobacco or other fibrous substances.
BROWN, JOHN - - -	2890	19th Sept. 1868	Improved means or apparatus for extracting water or other liquids from raw material or manufactured goods of wool, cotton, silk, flax or other fibrous materials.
BROWN, JOHN BORLASE -	2129	3rd July 1868	Furnaces for calcining ores and other mineral substances.
BROWN, JOHN HARCOURT -	3802	15th Dec. 1868	Improvements in the manufacture of helmets, hats, caps and similar articles, and in the apparatus and arrangement thereof employed in the said manufacture.
BROWN, OTHO RICHARD -	2589	19th Aug. 1868	An improved compound for tanning leather. <i>(Patented by Alexander Clark.)</i>
BROWN, POTTO - - -	2024	23rd June 1868	An improved staff or instrument to be used to ascertain the irregularities in the surfaces of millstones, with a view to their correction.
BROWN, SIDNEY - - -	789	7th March 1868	An improvement in the method of ornamenting bottles, vases and jars used for perfume or toilet purposes.
BROWN, THOMAS - - -	2557	15th Aug. 1868	Tents.
BROWN, WILLIAM - - -	3316	30th Oct. 1868	Machinery for rolling metals.
BROWN, WILLIAM ARMITAGE	1583	14th May 1868	An improved hand signal lamp.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROWN, WILLIAM DONALDSON	1549	12th May 1868	Reaping and mowing machines.
BROWN-WESTHEAD, MARCUS -	3384	7th Nov. 1868	An improved winder for packing or putting up for sale, needles, pins, buttons, cotton, silk, thread, worsted or other sewing or embroidering materials, and in combining two or more of these articles in one packet.
BROWN-WESTHEAD, MARCUS -	3813	15th Dec. 1868	Improvements applicable to spools or bobbins upon which thread or twine is wound for sewing and other purposes.
BROWN-WESTHEAD, MARCUS -	3866	18th Dec. 1868	Improvements applicable to thread or twine which is wound upon bobbins, spools or other surfaces.
BROWNE, ALEXANDER - -	2255	17th July 1868	Liquid meters. (Communicated by Henry George Robinson.)
BROWNE, ALEXANDER - -	3954	29th Dec. 1868	Improved methods and processes of manufacturing illuminating gas and apparatus to be employed therein and therefor, and in treating the products of such processes to improve and increase their commercial value. (Communicated by George Bligh Capel.)
BROWNE, BENJAMIN - -	837	11th March 1868	Improvements in the construction of girders or rails, railway chairs, sleepers, switches, points and crossings, and in the mode of laying, fixing and working the same on lines of railways and in other situations. (Communicated by William Buckwell.)
BROWNE, BENJAMIN - -	1040	26th March 1868	Improved machinery for the manufacture of collars, cuffs, and other articles of dress made of paper or paper and cloth combined. (Communicated by William Nathan Throckmorton.)
BROWNE, CHARLES - -	703	2nd March 1868	Anchors.
BROWNLIE, ARCHIBALD - -	950	20th March 1868	Apparatus for heating air for grain kilns.
BRUCE, DAVID - - -	3713	5th Dec. 1868	An improved apparatus for removing the stem of metal formed upon printer's type in the process of casting. (Patented by William Robert Lake.)
BRUCE, JOHN - - -	1507	7th May 1868	Machinery or apparatus for dressing mill-stones.
BRUCE, JOHN - - -	1508	7th May 1868	Bolters used for dressing flour and for other like purposes.
BRÜCK, OTTO - - -	1544	12th May 1868	Improvements in fans and in the method of combining the same with pocket-books and other like articles. (Patented by William Robert Lake.)
BRUNTON, JOHN DICKINSON -	302	28th Jan. 1868	Machinery or apparatus for cutting, dressing, planing, turning and shaping stone.
BRUNTON, JOHN DICKINSON -	2198	11th July 1868	Tools and machinery or apparatus for cutting slate and other rock.
BRYCESON, HENRY - -	1149	6th April 1868	Improvements in the construction of organs and in the application of electricity thereto.
BRYCESON, JOHN - - -	1149	6th April 1868	Improvements in the construction of organs and in the application of electricity thereto.

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## ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BUCHAN, ADAM - - -	2311	23rd July 1868	Construction of ploughs.
BUCHAN, PATRICK - - -	1778	29th May 1868	Preparation of hemp and flax.
BUCHHOBY, GUSTAV ADOLPH -	2526	12th Aug. 1868	Improved machinery for hulling grain.
BUCK, WILLIAM - - -	1013	25th March 1868	Machinery or apparatus for working and locking or controlling railway points and signals.
BUCKWELL, WILLIAM - -	837	11th March 1868	Improvements in the construction of girders or rails, railway chairs, sleepers, switches, points and crossings, and in the mode of laying, fixing and working the same on lines of railways and in other situations. (Patented by Benjamin Browne.)
BUDDEN, JOHN LEGGETT -	1445	2nd May 1868	Machinery or apparatus for drying wool or for discharging moisture from fibrous, granular or other materials. (Communicated by Woodford Pilkington.)
BUDENBERG, ARNOLD - -	102	11th Jan. 1868	Steam hammers. (Communicated by Carl Mund.)
BUDENBURG, CHRISTIAN FREDERICK.	1621	18th May 1868	Improvements in apparatus for conveying and regulating the pressure of steam passing through pipes or other vessels, and taking off condensed water from the same. (Patented by Edward Billington and William Jolley.)
BUEN, JOHN T. - - -	642	26th Feb. 1868	Bearings for axles and shafts. (Patented by Thomas Hill.)
BUGBEE, EDWIN HOLMES -	1420	30th April 1868	Machinery for spinning fibrous materials. (Patented by William Robert Lake.)
BULL, WILLIAM - - -	330	30th Jan. 1868	Improvements in vacuum and pressure case moulds, and in machinery for perforating the same, for the manufacture of fibrous articles in one piece without seam or joint.
BULLEN, WILLIAM - - -	3286	27th Oct. 1868	Improvements in breech-loading fire-arms and in cartridges to be used therewith, which improvements are also applicable to breech-loading ordnance and their cartridges.
BULLIVANT, WILLIAM MUNTON	668	27th Feb. 1868	An improved composition for preventing the fouling of iron and other ships' bottoms, and for preserving metal and other surfaces generally.
BULLOUGH, JOHN - - -	2366	28th July 1868	Looms for weaving.
BULLOUGH, JOHN - - -	2802	11th Sept. 1868	Warping or beaming machines.
BUNNING, HENRY, junior -	303	5th Feb. 1868	Apparatus for burning combustible liquids in furnaces.
BUNNING, HENRY, junior -	3183	17th Oct. 1868	Apparatus for burning combustible liquids in furnaces.
BUQUET, AMÉDÉE - - -	180	17th Jan. 1868	Apparatus for propelling ships or other vessels.
BURDETT, JOSEPH - - -	2762	8th Sept. 1868	Construction of machinery for making bricks.
BURGESS, CHARLES THOMAS -	2025	23rd June 1868	Reaping and mowing machines.
BURGESS, HERBERT - - -	989	24th March 1868	Construction of rails for railways and tramways.
BURGESS, WILLIAM - - -	3455	13th Nov. 1868	Signal apparatus for the protection of property and game.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BURGOYNE, WILLIAM - -	445	10th Feb. 1868	Improvements in the construction of letter and invoice holders and sorters.
BURKE, MICHAEL - - -	2054	26th June 1868	Folding chairs.
BURLEY, CHARLES - - -	2458	6th Aug. 1868	Low water indicators and safety valves for steam-boilers. (Patented by Martin Benson.)
BURLISON, ROBERT - -	1378	27th April 1868	Improvements in "papering" and "pressing" in the "finishing" of woven fabrics, and in the means or apparatus employed therein.
BURN, CHARLES - - -	1244	16th April 1868	An improved mode of and means for propelling or shunting carriages and goods' trucks on locomotive railways, and especially at railway stations.
BURN, ROBERT SCOTT - -	3252	24th Oct. 1868	Construction of conservatories, glass houses, and structures in which capability of contraction and expansion may be desired.
BURNS, DINNIS - - -	3525	20th Nov. 1868	Chemical compounds to be employed in treating diseases of the generative organ.
BURNS, EDWARD - - -	2142	6th July 1868	An improved cork drawer.
BURR, NATHANIEL MILLER -	1943	13th June 1868	Machinery for hulling or scouring wheat and other grain. (Patented by William Robert Lake.)
BURROW, TAYLOR - - -	1782	30th May 1868	Improvements in weaving and in the machinery or apparatus employed therefor.
BURROWS, BENJAMIN, senior -	2664	28th Aug. 1868	Machinery or apparatus to facilitate the separation and division of skeins of silk preparatory to winding.
BURROWS, EDWIN - - -	161	17th Jan. 1868	Improvements in the method of employing waste steam and the water arising from the condensation thereof, and in apparatus connected therewith.
BURROWS, SAMUEL - - -	161	17th Jan. 1868	Improvements in the method of employing waste steam and the water arising from the condensation thereof, and in apparatus connected therewith.
BURT, JAMES - - - -	3354	5th Nov. 1868	Floating dredgers or machinery for loosening, raising, transporting and depositing sand, gravel and mud. (Patented by Thomas Burt.)
BURT, THOMAS - - - -	3354	5th Nov. 1868	Floating dredgers or machinery for loosening, raising, transporting and depositing sand, gravel and mud. (Communicated by James Burt.)
BURTON, ALFRED NEVILLE -	3628	28th Nov. 1868	An improved metallic eyelet.
BURTON, BETHEL - - -	1736	26th May 1868	Breech-loading fire-arms and cartridges.
BURTON, EPHRAIM - - -	728	3rd March 1868	Machinery for screening and sifting coals, cinders and other matters.
BURTON, ROBERT - - -	3711	5th Dec. 1868	Construction of steam cultivating machinery.
BURY, JOHN ROBERT - - -	584	21st Feb. 1868	Shuttles for looms for weaving.
BURY, THOMAS - - - -	584	21st Feb. 1868	Shuttles for looms for weaving.
BÜSCHE, AUGUST - - -	3606	26th Nov. 1868	Machinery for making laces and braids.
BUNH, FREDERIC AUGUSTUS -	849	12th March 1868	A new or improved trap for catching mice, rats, animals, game or vermin.
BUSH, JAMES - - - -	1328	23rd April 1868	An improved spring fastening for brooches and other similar dress fastenings.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BUSH, WILLIAM EDWIN -	849	12th March 1868	A new or improved trap for catching mice, rats, animals, game or vermin.
BÜSSING, HEINRICH - -	1704	23rd May 1868	Chimney cowl.
BUTCHER, HENRY CHARLES -	1136	4th April 1868	An improved tobacco pipe.
BUTTERFIELD, ILLINGWORTH	3623	28th Nov. 1868	Machinery or apparatus for dressing warps.
BUTTERWORTH, ELLIS - -	917	18th March 1868	Furnaces or fire-places.
BUTTERWORTH, ELLIS - -	3945	26th Dec. 1868	Certain improvements in or applicable to furnaces.
BUTTERWORTH, ROBERT -	530	18th Feb. 1868	Certain improvements in looms employed in the manufacture of smallware goods.
BUTTERWORTH, THOMAS -	2727	4th Sept. 1868	An improved pump suitable for lubricating and for other purposes.
BUTTERY, WILLIAM - -	1733	26th May 1868	Apparatus for turning and closing cartridges.
BUXTON, GEORGE - - -	1343	24th April 1868	Improvements in the rails and chairs of railways, and in the method of adapting railway chairs to rails.
BUXTON, SIDNEY - - -	1541	12th May 1868	Writing and printing pens.
BYWATER, WILLIAM - -	3808	15th Dec. 1868	Apparatus employed in the manufacture of felt.

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CADBY, FREDERICK - -	736	4th March 1868	Construction of cruet and egg frames or stands.
CAHEN, LOUIS ISAAC - -	2096	30th June 1868	Breech-loading fire-arms and cartridges. (Patented by Alexander Melville Clark.)
CAIL, JEAN FRANÇOIS - -	3774	12th Dec. 1868	Method of and apparatus for evaporating and cooking. (Patented by Bristow Hunt.)
CAIN, THOMAS - - -	3414	10th Nov. 1868	Method of and apparatus for treating potatoes in order to prepare them for food.
CALAHAN, EDWARD AUGUSTINE	892	16th March 1868	Telegraphic apparatus. (Patented by William Edward Newton.)
CALKIN, GEORGE - - -	2595	20th Aug. 1868	A new instrument or apparatus for attaching to piano-fortes, in order to facilitate the study of the notes.
CALL, JOHN M <sup>c</sup> - - -	590	22nd Feb. 1868	An improved mode or process of preserving meat.
CALLANDEE, WILLIAM - -	1247	16th April 1868	Apparatus for filling cartridges.
CALVERLEY, JOSEPH - -	3470	14th Nov. 1868	Improvements in the manufacture of stereo-type printing surfaces, and in machinery for printing and receiving sheets of paper as they come from the printing machine, and also for cutting into sheets rolls of paper.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CALVERT, FRANCIS ALTON -	1139	4th April 1868	Machinery for cleaning and preparing cotton and other fibrous substances, also for selecting the long from the short fibres, and for opening twisted yarns and woven fabrics.
CALVERT, FRANCIS ALTON -	3018	2nd Oct. 1868	Improvements in machinery for opening, burring, cleaning and carding cotton, wool and other fibrous substances, also for opening twisted yarns and woven fabrics.
CALVERT, FREDERICK CRACE	2918	23th Sept. 1868	Certain improvements in dyeing and printing yarns and fabrics.
CALVERT, ROBERT - -	948	20th March 1868	An improved mode of applying a jet or jets of steam to blacksmiths' fires, cupolas, mill furnaces, smelting and refining works, for directing hot or cold blast thereinto, applicable also for ventilating mines and buildings, and for other purposes to which a blast is applicable.
CAMBIER, LÉON - - -	761	5th March 1868	Steam-engines. (Patented by William Edward Gedge.)
CAMBRIDGE, WILLIAM COL- [BORNE.	2638	25th Aug. 1868	Apparatus for crushing, breaking and reducing the soil or land.
CAMERON, JOHN - - -	3822	16th Dec. 1868	Improvements relating to the precipitation of copper and other metals from solutions by iron, and to their extraction from slag or scoria.
CAMERON, PAUL - - -	1709	25th May 1868	Ship's compasses.
CAMP, EDWIN GILLARD -	1437	2nd May 1868	Improvements in mallets used in the game of croquet and in similar games.
CAMPAIN, SAMUEL WILLIAM -	3487	16th Nov. 1868	Apparatus to be used when tilling or working land by steam power.
CAMPBELL, ALEXANDER [FRANCIS.	2864	17th Sept. 1868	Improvements in the construction of ships for carrying passengers, merchandise, fish, cattle, iron, wine and cargo of all kinds at sea and in rivers, such improvements being applicable in part for war and other ships.
CAMPBELL, JAMES - -	788	7th March 1868	Floating docks.
CAMPBELL, JOHN IRVING -	2714	2nd Sept. 1868	Improvements in securing bales of cotton and other material, and in wrappers therefor. (Communicated by Theodore Kleinknecht.)
CAMPION, WILLIAM - -	2887	15th Sept. 1868	Means or apparatus for washing or bleaching various articles.
CANDLIN, JOHN - - -	1106	1st April 1868	Flooring, sash and bench cramps.
CANNOT, GUSTAVE ADOLPHE -	47	7th Jan. 1868	Permanent way of railways.
CAPEL, GEORGE BLIGH - -	3954	29th Dec. 1868	Improved methods and processes of manufacturing illuminating gas and apparatus to be employed therein and therefor, and in treating the products of such processes to improve and increase their commercial value. (Patented by Alexander Browne.)
CAPELLE, JOSSE SÉRAPHIN -	3696	4th Dec. 1868	Improvements in callenders and in their application to desks, secretaries and other articles of furniture.
CARANTON, THEOPHILE -	3763	10th Dec. 1868	Roofing houses or other buildings. (Patented by Clinton Edgcumbe Brooman.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CARCANO, SALVATORE - -	1744	27th May 1868	Breech-loading fire-arms. (Patented by Henri Adrien Bonneville.)
CARDELL, EDMUND HARVEY -	1963	17th June 1868	Means and apparatus for mowing or reaping grass or grain crops.
CARDOT, CHARLES - -	1008	25th March 1868	Improvements in apparatus for exhibiting advertisements, and in apparatus for distributing prospectuses, cards, circulars and other papers. (Patented by Henri Adrien Bonneville.)
CARLE, JOHANNES FRIEDRICH [CHRISTIAN.	2712	2nd Sept. 1868	Improvements in breech-loading needle guns, and in the cartridges to be used therewith or with other needle guns.
CARLING, ROBERT - -	195	20th Jan. 1868	Certain improvements in lubricating the interior frictional surfaces of steam or other motive-power cylinders.
CARLING, THOMAS - -	195	20th Jan. 1868	Certain improvements in lubricating the interior frictional surfaces of steam or other motive-power cylinders.
CAROL, JEAN CHARLES -	50	7th Jan. 1868	The publication and distribution of certain journals, almanacks, books, papers, &c., which in themselves form a complete system of business and other advertisements. (Patented by Stanley Etey.)
CARON, PAUL JOSEPH [EDOUARD.	2952	26th Sept. 1868	An improved safety apparatus for the prevention of accidents from the breaking of chains or ropes of hoisting gear.
CARR, JOHN - - -	186	18th Jan. 1868	Manufacture of meat and other biscuits.
CARR, THOMAS - - -	3235	22nd Oct. 1868	Improvements in or applicable to machinery for disintegrating or pulverising minerals, ores, clays, chemicals, artificial manures and various other substances and articles of manufacture, and for mixing or separating various materials, and for dispersing fluids, semifluids and molten metals, to facilitate or produce chemical or other changes.
CARR, WILLIAM - - -	1969	17th June 1868	Certain improvements in the construction of hinges applicable to the doors of carriages, coaches and similar vehicles.
CARR, WILLIAM - - -	2030	24th June 1868	Certain improvements in the construction and manufacture of carriages, coaches and other vehicles of a similar description.
CARR, WILLIAM SEGGIE -	1981	18th June 1868	Waterclosets.
CARRIGG, HENRY - - -	3516	19th Nov. 1868	Manufacture of tribasic phosphate of lime, and the application thereof to certain useful purposes.
CARRINGTON, WILLIAM [THOMAS.	2753	7th Sept. 1868	Capstans.
CARRINGTON, WILLIAM [THOMAS.	3236	23rd Oct. 1868	Breech-loading fire-arms.
CARTER, ALFRED - - -	1338	23rd April 1868	Machinery for the manufacture of nails, spikes and bolts.
CARTER, CHARLES HENRY -	3222	21st Oct. 1868	Extractors for breech-loading pistols.
CARTER, HENRY - - -	3477	16th Nov. 1868	An improved apparatus to be employed for exhibition purposes, in connection with gas-burners.
CARTER, HENRY - - -	3769	11th Dec. 1868	Construction of breech-loading fire-arms.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CARTER, JAMES HARRISON -	3143	14th Oct. 1868	An improved lubricating apparatus.
CARTER, JOHN - - -	877	14th March 1868	Machinery for the manufacture of nails and spikes.
CARTER, JOHN - - -	1891	10th June 1868	An improved portable closet or commode seat.
CARTER, JOHN WALKER Mc -	694	29th Feb. 1868	Means or apparatus for heating the feed water of steam-engine boilers.
CARTER, JONATHAN - -	739	4th March 1868	Improvements in and applicable to lamps for burning petroleum, hydrocarbon and other oils.
CARTER, JONATHAN - -	1291	21st April 1868	Improvements in and applicable to lamps in use in railway carriages and in similar situations.
CARTER, WILLIAM - - -	3570	24th Nov. 1868	Improved means or apparatus for communicating in railway trains.
CASH, JOHN - - - -	417	7th Feb. 1868	Improved machinery for the manufacture of looped and textile fabrics, and in the fabrics produced thereon.
CASH, JOSEPH - - - -	417	7th Feb. 1868	Improved machinery for the manufacture of looped and textile fabrics, and in the fabrics produced thereon.
CASHIN, THOMAS FREDERICK -	1356	25th April 1868	Improvements in apparatus for actuating and regulating the working of railway signals, and the points and switches of rails (a part of which is applicable for other purposes), and also in the mode of fish-jointing rails.
CASHIN, THOMAS FREDERICK -	3128	13th Oct. 1868	Improvements in the mode of securing the joints of rails, and in apparatus for guiding and providing for the safety of engines and trains passing over points or switches on railways.
CASPER, EDWARD - - -	802	7th March 1868	An improved apparatus for raising and forcing liquids, more especially designed for supplying water to steam-boilers. (Communicated by Francois Nicolas Santenard.)
CASPER, EDWARD - - -	1215	11th April 1868	Wet gas-meters. (Communicated by Onésime de Morgny.)
CASSELL, JOHN HENRY - -	1414	30th April 1868	Sheathing iron ships.
CASSON, JOHN - - - -	1163	6th April 1868	Machinery for planing wood.
CASSON, JOHN - - - -	1337	23rd April 1868	Machinery for sawing wood.
CATLOW, CHRISTOPHER - -	134	15th Jan. 1868	Looms for weaving.
CATLOW, CHRISTOPHER - -	1021	25th March 1868	Looms for weaving.
CATLOW, CHRISTOPHER - -	2937	24th Sept. 1868	Looms for weaving.
CAUCHEMONT, FRANÇOIS JEAN [BAPTISTE.	3796	14th Dec. 1868	Locks or fastenings for doors and other purposes. (Patented by Clinton Edgcumbe Brooman.)
CAUCHEMONT, FRANÇOIS [NICOLAS.	3796	14th Dec. 1868	Locks or fastenings for doors and other purposes. (Patented by Clinton Edgcumbe Brooman.)
CAUDRON, HENRY - - -	1505	7th May 1868	An improved portable apparatus for administering resinous sudations. (Patented by William Edward Gedge.)
CAZAL, JEAN HENRI - -	3826	31st Oct. 1868	Sewing-machines. (Patented by Alexander Melville Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CAZALAT, ANTOINE GALY -	3965	30th Dec. 1868	Improvements in the manufacture of steel and in the apparatus employed therein.
CHADBURN, CHARLES HENRY	3682	3rd Dec. 1868	An improved instrument for sketching and drawing.
CHADWICK, JAMES - - -	2730	4th Sept. 1868	Certain improvements in condensers of carding-engines.
CHADWICK, THOMAS - -	408	6th Feb. 1868	Improvements in or applicable to certain sewing-machines. (Communicated by Thomas Antony Macaulay.)
CHADWICK, THOMAS - -	2568	17th Aug. 1868	Sewing-machines. (Partly communicated by Auguste Serrean.)
CHALAS, PIERRE - - -	2449	4th Aug. 1868	Friction clutches for the driving shafts of various kinds of machinery.
CHALLENGER, JOSEPH - -	2792	10th Sept. 1868	An improved mechanical apparatus to be employed for placing and securing "fog" or "detonating" signals upon the rails or metals of railways.
CHALLINER, WILLIAM - -	3908	22nd Dec. 1868	Stamping forks or spoons of steel, iron, silver or any other metal.
CHAMBERLAIN, EDWARD -	1307	22nd April 1868	Certain improvements in apparatus for stamping, dating, indicating, cancelling or otherwise impressing or imprinting marks or designs. (Patented by Charles Barlow Ingham.)
CHAMBERLAIN, FRANCIS -	44	6th Jan. 1868	Steam-boiler and other furnaces.
CHAMBERLAIN, HUMPHREY -	541	18th Feb. 1868	Improvements in the manufacture of compressed bricks and in the machinery or apparatus employed therein.
CHAMBERLAIN, HUMPHREY -	604	24th Feb. 1868	Improvements in the burning of bricks, lime, cement and other like substances, and in the kilns employed therein. (Partly communicated by Friedrich Hoffmann.)
CHAMBERLAIN, HUMPHREY -	943	19th March 1868	Improvements in the burning and drying of bricks, lime, cement and other like substances, and in the kilns employed therein. (Partly communicated by Friedrich Hoffmann.)
CHAMBERLAIN, JAMES WING	1559	13th May 1868	An improvement in steam-engines. (Communicated by William Tyler Chamberlain.)
CHAMBERLAIN, WILLIAM TY- [LEE.	1559	13th May 1868	An improvement in steam-engines. (Patented by James Wing Chamberlain.)
CHAMBERLIN, ROBERT - -	2231	15th July 1868	A new or improved tool or chisel for mortising machines. (Communicated by Otis Adams and James Hatch.)
CHAMBERS, SAMSOM - - -	1596	15th May 1868	Improved means of preventing the radiation of heat from steam pipes, cylinders and boilers.
CHAMEROY, EDMOND AUGUSTIN -	1668	21st May 1868	An improved liquid or gas meter.
CHAMPNESS, WILLIAM - -	100	11th Jan. 1868	Method of ornamenting wearing-apparel termed stays and corsets or riding belts.
CHANDLER, JAMES - - -	2174	9th July 1868	Apparatus for drawing and preventing waste of water from pipes, mains or other sources for domestic or other purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CHANDOR, LASLO - - -	2080	30th June 1868	Means or apparatus for the combustion of naphtha, benzole, and similar liquids. (Patented by George Glover.)
CHAPIN, HENRY AUGUSTUS -	2082	26th June 1868	Metallic cartridge shells and heads. (Patented by Alexander Horace Brandon.)
CHAPLIN, CHARLES JOHN -	3431	12th Nov. 1868	An improved composition for cattle food. (Communicated by Edward Chaplin and Edward Payne.)
CHAPLIN, EDWARD - - -	3431	12th Nov. 1868	An improved composition for cattle food. (Patented by Charles John Chaplin.)
CHAPMAN, CHARLES - - -	1885	21st May 1868	Ships' compasses.
CHAPMAN, GAVIN - - -	3203	20th Oct. 1868	Treating sewage in order to obtain valuable products therefrom.
CHAPMAN, HENRY - - -	340	31st Jan. 1868	Bolts, nuts and washers.
CHAPMAN, WILLIAM - - -	1191	9th April 1868	Improved machinery or apparatus for skiving or chamfering leather and other materials.
CHAPMAN, WILLIAM FLOYD -	3587	25th Nov. 1868	Packing boxes or packing cases.
CHARD, HENRY DINHAM -	1319	22nd April 1868	Construction of buildings.
CHARDON, CLAUDE BENOIT -	3012	1st Oct. 1868	Construction of locomotive engines adapted for railroads and common roads.
CHARLES, ROBERT - - -	3890	4th Dec. 1868	Certain improvements in thimbles.
CHARVET, MONSIEUR BENOIT	1720	25th May 1868	Construction of railway wheels, pistons and other articles made of wrought iron. (Patented by Hector Auguste Dufrené.)
CHASE, DANIEL LA FOREST -	1918	12th June 1868	Governors for steam and other engines.
CHASE, FREDERIC - - -	1952	15th June 1868	Construction of zincing baths. (Patented by John Henry Johnson.)
CHASSEPOT, ANTOINE AL- [PHONSE.	534	18th Feb. 1868	Breech-loading fire-arms. (Patented by Clinton Edgcumbe Brooman.)
CHATEAU, JOSEPH ETIENNE [ELOI.	1680	21st May 1868	Governors for steam and other motive-power engines. (Patented by William Edward Newton.)
CHATEAU, JOSEPH ETIENNE [ELOI.	2476	7th Aug. 1868	Improved apparatus or mechanism for regulating the speed or power of machinery. (Patented by William Edward Newton.)
CHATEAU, THÉODORE - - -	3714	5th Dec. 1868	A new or improved chemical compound for the disinfection and treatment of sewage and other liquid and solid matters. (Patented by Alexander Melville Clark.)
CHATWOOD, SAMUEL - - -	1415	30th April 1868	Construction of safes.
CHAUDRON, JOSEPH - - -	3072	8th Oct. 1868	Improvements in boring or sinking pits or shafts for mines and other purposes, and in apparatus and tools employed therefor.
CHAUDUN, JULES JOSEPH -	1180	8th April 1868	Cartridges for breech-loading fire-arms.
CHAUSY, MARIE - - -	2232	15th July 1868	Lamps. (Patented by John Henry Johnson.)
CHAVAGNAT, MICHEL - - -	1788	30th May 1868	Means or apparatus for closing and securing vessels containing liquids, especially applicable to those holding petroleum, light oil of schist, and other volatile, explosive and dangerous liquids.
CHAYTOR, HENRY - - -	1377	27th April 1868	Rolling stock of railways.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CHEETHAM, WILLIAM THOMAS	3965	18th Dec. 1868	Improvements in apparatus for warming apartments, conservatories and other structures, applicable also to evaporating purposes.
CHEMALLÉ, JEAN LOUIS, senior	3916	22nd Dec. 1868	Construction of floating docks intended for raising and careening vessels and also for their construction. (Patented by William Edward Gedge.)
CHEUSES, JOSEPH MATHIEU -	3262	24th Oct. 1868	An improved glove fastening. (Patented by William Edward Gedge.)
CHEVALIER, JEAN MARIE [(KNOWN AS CHARLES CHEVA- [LIER)].	1713	25th May 1868	Obtaining and applying motive-power. (Patented by Alexander Melville Clark.)
CHEVALIER, ROBERT MAGNUS	797	7th March 1868	An improvement in the manufacture of the blinds usually called "Venetian" blinds.
CHEVASSU, FRANÇOIS - -	524	17th Feb. 1868	An improved shirt.
CHILCOT, JAMES WILLIAM -	3809	15th Dec. 1868	Construction of stays or corsets.
CHILD, WILLIAM HENRY -	3271	26th Oct. 1868	Rotary engines.
CHILDS, AUGUSTUS BRYANT -	1275	18th April 1868	Improvements in the grinding surface of millstones and in apparatus or machinery for forming the same.
CHILDS, AUGUSTUS BRYANT -	1427	1st May 1868	An improved apparatus or machine for separating mixed powdered or other substances.
CHILDS, AUGUSTUS BRYANT -	2614	22nd Aug. 1868	Machinery for dressing or cutting millstones.
CHIPMAN, GEORGE WASHING- [TON.	1316	22nd April 1868	Improvements in carpet linings and in machinery for manufacturing the same. (Patented by William Robert Lake.)
CHISWELL, WILLIAM - -	3717	7th Dec. 1868	Improved means for the purpose of preventing horses slipping in snowy, frosty or other slippery weather, and for rendering it unnecessary to remove their shoes for roughing.
CHOMÉ-STEINBACH, FREDERIC	2267	18th July 1868	An improved joint for metallic pipes for conveying fluids and liquids.
CHOPPING, HENRY - - -	938	19th March 1868	Windmills.
CHORLTON, WILLIAM - -	2623	24th Aug. 1868	Certain improvements in "slashers," "tape legs" or "heald warpers," employed in the preparation of cotton warps.
CHRISTALON, ALOIS - -	809	9th March 1868	Construction of cigar-tubes and pipes when used in combination. (Patented by Louis Blumfeld.)
CHRISTIE, JOHN - - -	671	28th Feb. 1868	An improved lithographic printing machine, by means of an endless tympan and self-acting gripping scraper to be worked by hand, steam or other power.
CHRISTOPLE, HUGUES ANTOINE [PAUL.	3828	16th Dec. 1868	Improved processes for inlaying metals. (Patented by Alexander Melville Clark.)
CHRISTY, THOMAS - - -	1803	2nd June 1868	Paper satining machines.
CHUBB, CHARLES JOHN - -	1482	6th May 1868	An improved mode of getting coal, slate or other minerals, and an improved apparatus for effecting the purpose, which apparatus is also applicable to other uses.
CHURCH, ISAAC SHERMAN -	3158	15th Oct. 1868	Manufacture of water and drain pipes. (Patented by Alfred Robins.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CHURCH, WALTER CHARLES -	3169	16th Oct. 1868	Improvements in steam or other motive-engines, and in safety valves and arrangements for preventing damage or accidents in steam-boilers.
CHURCHILL, CHARLES - -	3173	16th Oct. 1868	Sporting breech-loading fire-arms and cartridges for the same. (Communicated by William H. Miller.)
CHURCHILL, JAMES DIXON -	3190	10th July 1868	Hot air engines.
CHURCHMAN, HENRY - -	2456	6th Aug. 1868	Apparatus for cleaning boots and shoes.
CIMETIÈRE-NORBERT - -	1506	7th May 1868	An improvement in throstle frames for spinning flax, tow, hemp, jute, silk, wool or cotton. (Patented by William Edward Gedge.)
CLAMOND, CHARLES - -	3060	7th Oct. 1868	Improved means and apparatus for generating electricity by heat. (Patented by Edward Thomas Hughes.)
CLANCHY, TIMOTHY JOSEPH -	455	11th Feb. 1868	Matches and fuses.
CLARE, JOSEPH - - -	1486	6th May 1868	Improvements applicable to the prevention of fraud in the collection of fares in omnibusses and other carriages, and in apparatus connected therewith.
CLARE, THOMAS DEYKIN -	1880	9th June 1868	Improvements in moulds for casting metallic articles, and in the treatment and means of finishing cast metallic articles.
CLARK, ADOLPHUS - - -	353	1st Feb. 1868	Improved apparatus for manufacturing and storing aerated waters, and for transferring these and other liquids from one vessel to another. (Partly communicated by Gustavus Davis Dows.)
CLARK, ALEXANDER - - -	1365	25th April 1868	Steam generators and furnaces. (Communicated by S. Lloyd Wiegand.)
CLARK, ALEXANDER - - -	2589	19th Aug. 1868	An improved compound for tanning leather. (Communicated by Louis Henry Dennis and Otho Richard Brown.)
CLARK, ALEXANDER - - -	3190	19th Oct. 1868	An improved submarine telescopic lantern. (Communicated by Henry Thompson.)
CLARK, ALEXANDER - - -	3497	17th Nov. 1868	An improved machine for making ginger and other snaps from soft dough. (Communicated by Daniel Morey Holmes.)
CLARK, ALEXANDER MELVILLE	7	1st Jan. 1868	Breech-loading ordnance. (Communicated by William Armstrong.)
CLARK, ALEXANDER MELVILLE	199	20th Jan. 1868	Steam-boilers. (Communicated by Alexandre Lagrafel.)
CLARK, ALEXANDER MELVILLE	255	24th Jan. 1868	Means and apparatus for lubricating parts of machinery exposed to the action of steam. (Communicated by Louis Auguste Gerin.)
CLARK, ALEXANDER MELVILLE	333	30th Jan. 1868	Adjustable wrenches. (Communicated by Pierre Augustin Samuel.)
CLARK, ALEXANDER MELVILLE	347	31st Jan. 1868	Improvements in steam-engines and in parts connected therewith. (Communicated by Charles Julien Quétil.)



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, ALEXANDER MELVILLE	354	1st Feb. 1868	Improvements in the mode of utilizing and increasing the lighting power of gases and inflammable vapors, and in apparatus connected therewith. (Communicated by Edouard Armand d'Hurcourt.)
CLARK, ALEXANDER MELVILLE	450	10th Feb. 1868	Breech-loading ordnance and projectiles. (Communicated by Pierre Jules Jacob Noël.)
CLARK, ALEXANDER MELVILLE	513	15th Feb. 1868	An improved material applicable for the manufacture of felted and other fabrics. (Communicated by Louis Auguste Roux.)
CLARK, ALEXANDER MELVILLE	533	18th Feb. 1868	An improved vegetable extract for culinary purposes. (Communicated by Gustave de Villepoix and Joseph François Bonnaterre.)
CLARK, ALEXANDER MELVILLE	743	4th March 1868	Paving roads, streets or ways. (Communicated by Faure Biéner.)
CLARK, ALEXANDER MELVILLE	770	5th March 1868	Steam pumps. (Communicated by Pierre Augustin Samuël.)
CLARK, ALEXANDER MELVILLE	816	9th March 1868	Means and apparatus employed for freezing liquids. (Communicated by Guillaume Toselli.)
CLARK, ALEXANDER MELVILLE	1331	23rd April 1868	Apparatus for transmitting and multiplying motive-power. (Communicated by François Jobard.)
CLARK, ALEXANDER MELVILLE	1524	9th May 1868	Breech-loading fire-arms. (Communicated by Jean Mathieu Deprez.)
CLARK, ALEXANDER MELVILLE	1601	15th May 1868	Permanent way of railways. (Communicated by M <sup>r</sup> Legrand.)
CLARK, ALEXANDER MELVILLE	1610	16th May 1868	Lamps for burning mineral oils and essences. (Communicated by Louis Désiré Defenae and Paul Hyacinthe Girardin.)
CLARK, ALEXANDER MELVILLE	1627	18th May 1868	Apparatus for ironing and finishing linen and other fabrics. (Communicated by Jules Decoudun.)
CLARK, ALEXANDER MELVILLE	1685	21st May 1868	Differential gearing applicable to lifting jacks, cranes, windlasses and other purposes. (Communicated by Michel Loup.)
CLARK, ALEXANDER MELVILLE	1691	22nd May 1868	Rotary steam-engines. (Communicated by Jaques Viglino.)
CLARK, ALEXANDER MELVILLE	1712	25th May 1868	Improvements in rotary engines or apparatus, applicable also as a pump, blower or liquid meter. (Communicated by Henry Guillemaut Despecher.)
CLARK, ALEXANDER MELVILLE	1713	25th May 1868	Obtaining and applying motive-power. (Communicated by Jean Marié Chevalier, known as Charles Chevalier.)
CLARK, ALEXANDER MELVILLE	1740	26th May 1868	Apparatus for dressing millstones. (Communicated by Ambroise Dubois and Jean Joseph Pouilly.)
CLARK, ALEXANDER MELVILLE	1842	5th June 1868	Combination locks. (Communicated by Isaac Wixom Lamb.)
CLARK, ALEXANDER MELVILLE	1871	6th June 1868	Machinery for forging or shaping metals. (Communicated by Julien Laurent.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, ALEXANDER MELVILLE	1895	10th June 1868	Pipes used for smoking. (Communicated by Adolphe Achille Pathi.)
CLARK, ALEXANDER MELVILLE	1907	11th June 1868	Manufacture of bricks used for building and other purposes. (Communicated by François Fabre.)
CLARK, ALEXANDER MELVILLE	1972	17th June 1868	Purification of ceramic, vitrifiable and other matters, as also of the crucibles, furnaces or vessels used for containing the same. (Communicated by Louis Clémendot and Emile Rousseau.)
CLARK, ALEXANDER MELVILLE	2013	22nd June 1868	Machinery or apparatus for winding thread. (Communicated by Jean Alfred Desbois.)
CLARK, ALEXANDER MELVILLE	2096	30th June 1868	Breech-loading fire-arms and cartridges. (Communicated by Louis Isaac Cahen, alias Lyon.)
CLARK, ALEXANDER MELVILLE	2119	2nd July 1868	Barometers and other pressure indicators. (Communicated by Paul Baudet.)
CLARK, ALEXANDER MELVILLE	2120	2nd July 1868	Improvements in the treatment or preparation of flax, hemp, jute and other fibrous matters for spinning purposes, and in apparatus for the same. (Communicated by Julien Hyacinthe Joseph Bayart.)
CLARK, ALEXANDER MELVILLE	2140	4th July 1868	An improved fastening for boots, shoes and other articles. (Communicated by François Jean Guillaume Gobin alias Daudé.)
CLARK, ALEXANDER MELVILLE	2183	9th July 1868	Looms for weaving. (Communicated by Alphonse Goullioud.)
CLARK, ALEXANDER MELVILLE	2292	21st July 1868	Apparatus for feeding steam-boilers and liquid or fluid reservoirs, partly applicable to pumps. (Communicated by Charles François Thibault.)
CLARK, ALEXANDER MELVILLE	2347	25th July 1868	Improvements in the means of steering steam vessels and in apparatus for the same. (Communicated by Corrado Trinchieri.)
CLARK, ALEXANDER MELVILLE	2357	27th July 1868	Improvements in the manufacture of artificial ice and in apparatus for the same. (Communicated by Jean Baptiste Toselli.)
CLARK, ALEXANDER MELVILLE	2463	6th Aug. 1868	Scissors. (Communicated by Jacques Frederic Paul.)
CLARK, ALEXANDER MELVILLE	2502	11th Aug. 1868	Improvements in propelling vessels and in apparatus for the same, also applicable for other purposes. (Communicated by Alexandre Hédiard.)
CLARK, ALEXANDER MELVILLE	2556	15th Aug. 1868	Manufacture of size. (Communicated by Thomas Gray.)
CLARK, ALEXANDER MELVILLE	2645	25th Aug. 1868	Improvements in breech-loading fire-arms and in the mode of capping or priming the same. (Communicated by Paul Perret and François Deroche.)
CLARK, ALEXANDER MELVILLE	2721	3rd Sept. 1868	An improved portable or camp bedstead and travelling trunk combined. (Communicated by Charles Joseph Everickx.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, ALEXANDER MELVILLE	2777	9th Sept. 1868	Metallic spring packings. (Communicated by Henry Bertrand and François Velut.)
CLARK, ALEXANDER MELVILLE	2778	9th Sept. 1868	Improved means of instantaneously opening envelopes and of attaching them to the letters they contained. (Communicated by Constant Jardry.)
CLARK, ALEXANDER MELVILLE	2828	14th Sept. 1868	Apparatus for drawing off or bottling liquids. (Communicated by David Perret.)
CLARK, ALEXANDER MELVILLE	2854	16th Sept. 1868	Electro-magnets. (Communicated by Félix Gruet and Frédéric Gruet.)
CLARK, ALEXANDER MELVILLE	2978	29th Sept. 1868	Machinery or apparatus applicable for raising and lowering weights, hauling and other purposes. (Communicated by Jean Ventouillac and Louis Ventouillac and Edouard Jan.)
CLARK, ALEXANDER MELVILLE	3280	26th Oct. 1868	Means of and machinery for scouring wool. (Communicated by Auguste Martel-Delespierre and Henri Rousseau.)
CLARK, ALEXANDER MELVILLE	3326	31st Oct. 1868	Sewing-machines. (Communicated by Jean Henri Casal.)
CLARK, ALEXANDER MELVILLE	3380	6th Nov. 1868	Manufacture of ropes, cordage, lines and twines. (Communicated by Louis Gabriel Yon.)
CLARK, ALEXANDER MELVILLE	3389	7th Nov. 1868	Machinery for planing, mortising and otherwise preparing wood, metals and other materials. (Communicated by Charles Gabriel Nicolas Schanberg, senior.)
CLARK, ALEXANDER MELVILLE	3390	7th Nov. 1868	Improvements in the separation of solid matters contained in liquids, and in apparatus for the same. (Communicated by Lucien Henri Blanchard and Louis Léon Henri Provost.)
CLARK, ALEXANDER MELVILLE	3430	11th Nov. 1868	Cylinder printing machines. (Communicated by Jules Derriey.)
CLARK, ALEXANDER MELVILLE	3602	26th Nov. 1868	An improved preparation or compound for sizing and dressing threads and fabrics. (Communicated by Pierre Joseph Alexis Mandet.)
CLARK, ALEXANDER MELVILLE	3621	27th Nov. 1868	Letter or paper clips. (Communicated by Adolphe Charles Guillemot.)
CLARK, ALEXANDER MELVILLE	3642	30th Nov. 1868	A new or improved material for the manufacture of tiles for roofing purposes. (Communicated by Gaston Marcelin de Jean.)
CLARK, ALEXANDER MELVILLE	3673	2nd Dec. 1868	Improvements in paving blocks or slabs of wood, and in the means of fixing the same. (Communicated by Alexandre Trenauway.)
CLARK, ALEXANDER MELVILLE	3714	5th Dec. 1868	A new or improved chemical compound for the disinfection and treatment of sewage and other liquid and solid matters. (Communicated by Lucien Henri Blanchard and Théodore Chateau.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, ALEXANDER MELVILLE	3726	7th Dec. 1868	Improvements in winders for winding silk, cotton, jute and other threads, twist and fine wire, and in the mode of arranging such articles for the purpose of retailing the same. (Communicated by François Ernest Vagues-Fessart.)
CLARK, ALEXANDER MELVILLE	3828	16th Dec. 1868	Improved processes for inlaying metals. (Communicated by Hugues Antoine Paul Christophe and Charles Henri Bouilhet.)
CLARK, ALEXANDER MELVILLE	3929	23rd Dec. 1868	Gas-burners. (Communicated by Joseph Paul Clovis.)
CLARK, GEORGE - - -	1210	11th April 1868	Improvements in the manufacture and production of explosive compounds, and in apparatus for their manufacture and use.
CLARK, GEORGE - - -	3408	10th Nov. 1868	Treatment, manufacture and use of explosive compounds.
CLARK, JAMES - - -	3864	18th Dec. 1868	Preparation or treatment of jute, china grass, cotton and other fibrous materials in the raw state, spun into yarns or woven into fabrics.
CLARK, JOHN - - -	517	17th Feb. 1868	An improved tobacco box and tobacco cutting machine combined.
CLARK, JOHN - - -	1034	26th March 1868	Improvements in locomotive engines, in part applicable to steam-engines generally, and to railway and other carriages.
CLARK, JOHN - - -	2424	1st Aug. 1868	Improvements in steam-boilers and furnaces, in part applicable to surface condensers of marine engines.
CLARK, JOHN - - -	3860	5th Nov. 1868	Machinery or apparatus for turning, boring, cutting and shaping wood for bobbins and similar articles.
CLARK, JOHN - - -	3505	18th Nov. 1868	An improved lamp for lighting mines.
CLARK, JONATHAN - - -	583	21st Feb. 1868	Certain improvements in machinery or apparatus employed for sizing yarn, termed "tape legs," being also applicable to other similar machinery.
CLARK, JOSIAH LATIMER -	764	5th March 1868	Differential galvanometers.
CLARK, JOSIAH LATIMER -	2609	21st Aug. 1868	Apparatus for communicating between the passengers, guards and engine drivers of a railway train.
CLARK, SAMUEL - - -	3259	24th Oct. 1868	Machinery or apparatus for cleaning and decorticating cotton. (Partly communicated by Felix Figon.)
CLARK, WILLIAM - - -	1034	26th March 1868	Improvements in locomotive engines, in part applicable to steam-engines generally, and to railway and other carriages.
CLARK, WILLIAM - - -	2878	18th Sept. 1868	Manufacturing spring boots for horses.
CLARK, WILLIAM RICHARD -	3899	21st Dec. 1868	Apparatus for communicating between the passengers and guard and engine driver of railway trains.
CLARK, WILLIAM ROBERT [COTTON.]	1602	15th May 1868	An improved mode of embalming or preserving dead bodies. (Patented by William Robert Lake.)
CLARKE, GEORGE - - -	348	31st Jan. 1868	Fire-escapes.
CLARKE, JOHN - - -	1245	16th April 1868	Manufacture of paper.
CLARKE, THOMAS EDWARD -	2770	8th Sept. 1868	Improvements applicable to open fire-places.
CLARKE, WILLIAM - - -	916	18th March 1868	Capstans.

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## ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARKE, WILLIAM - - -	1305	22nd April 1868	Manufacture of ornamental fabrics in twist lace machinery.
CLAUS, CARL FRIEDRICH -	1073	30th March 1868	Manufacture of iron.
CLAUS, CARL FRIEDRICH -	1074	30th March 1868	Improvements in the manufacture of malleable iron, and in the process of re-heating the same for the purpose of rolling or hammering it.
CLAVEL, ALEXANDRE - - -	225	22nd Jan. 1868	A new or improved mode of producing a coloring matter. (Patented by Clinton Edgcumbe Brooman.)
CLAVEL, ALEXANDRE - - -	227	22nd Jan. 1868	A new or improved mode of extracting coloring matter from madder. (Patented by Clinton Edgcumbe Brooman.)
CLAVEL, ALEXANDRE - - - (Clavel, Alexander).	2296	22nd July 1868	Production of a red coloring matter. (Patented by John Henry Johnson.)
CLAY, JOHN - - - -	876	14th March 1868	Harness, saddles and harness pads.
CLAY, WILLIAM - - - -	3913	22nd Dec. 1868	Manufacture of forgings.
CLAYTON, JOHN - - - -	2062	29th June 1868	Looms for weaving.
CLAYTON, JOSEPH - - - -	3897	21st Dec. 1868	Apparatus for working the valves of steam and other engines.
CLEAVER, JOSEPH - - - -	2522	12th Aug. 1868	Ornamenting bobbin net lace and other fabrics.
CLELLAND, JOHN ALEXANDER [MAC.]	536	18th Feb. 1868	An improved material for the base of artificial teeth and for other purposes, and also an improved construction of mould for forming dental plates. (Patented by William Edward Newton.)
CLÉMANDOT, LOUIS - - -	1972	17th June 1868	Purification of ceramic, vitrifiable and other matters, as also of the crucibles, furnaces or vessels used for containing the same. (Patented by Alexander Melville Clark.)
CLÉRIN, PAUL - - - -	1617	16th May 1868	An improved process for extracting or removing wool and hair from hides or skins. (Patented by William Edward Gedge.)
CLERK, FRANCIS NORTH -	283	27th Jan. 1868	Machinery for the manufacture of washers and other similar articles.
CLEVELAND, CHARLES H. -	971	23rd March 1868	Braces or suspenders. (Patented by Thomas Pope.)
CLIFF, WILLIAM DEWHIRST -	1038	26th March 1868	Furnaces or kilns for the burning of bricks, pottery, iron-ore and other similar substances.
CLIFFORD, HENRY - - - -	3938	24th Dec. 1868	Manufacture of submarine telegraph cables.
CLIFTON, CHARLES HENRY -	3130	13th Oct. 1868	A new or improved system of and machinery for making ornaments for picture frames and other purposes.
CLIFTON, EDWARD - - - -	740	4th March 1868	Adjustable door handles.
CLIFTON, HENRY - - - -	3220	21st Oct. 1868	Butter churns.
CLISSOLD, WILLIAM - - -	1108	1st April 1868	Improvements in belt fastenings, which improvements are also applicable to the uniting of parts of harness.
CLISSOLD, WILLIAM - - -	2872	17th Sept. 1868	Improved machinery for feeding wool and other fibres to preparing and carding-machines.
CLOUGH, JAMES - - - -	3306	29th Oct. 1868	Certain improvements in machinery for preparing cotton and other fibrous substances.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLOUGH, JOHN - - -	1466	5th May 1868	"Screw-gill-boxes" for preparing wool and other fibrous substances.
CLOUGH, ROBERT - - -	2056	26th June 1868	Looms for weaving.
CLOVIS, JOSEPH PAUL - - -	3929	23rd Dec. 1868	Gas-burners. (Patented by Alexander Melville Clark.)
CLOW, JAMES BEACH - - -	3952	29th Dec. 1868	Improvements in the manufacture of wrought metal pipes and in the apparatus employed for that purpose. (Patented by Charles Denton Abel.)
CLOZEL, LOUIS - - -	3141	14th Oct. 1868	Tanning all animal skins.
CLUNES, ROBERT MORTIMER -	1565	13th May 1868	Harrowes.
COATES, A. W. - - -	1759	28th May 1868	Horse rakes. (Patented by William Edward Newton.)
COCHRAN, ALEXANDER - - -	1976	18th June 1868	Machinery for finishing woven fabrics.
COCHRAN, JOHN WEBSTER -	478	12th Feb. 1868	Cartridge-boxes or holders. (Patented by Samuel Blatchford Tucker.)
COCHRANE, CHARLES - - -	579	21st Feb. 1868	Blast furnaces.
COCHRANE, CHARLES - - -	689	29th Feb. 1868	A new or improved appliance for hot blast water tuyeres.
COCHRANE, CHARLES - - -	715	3rd March 1868	Valves or dampers for pipes, passages or flues serving to conduct gases at high temperatures.
COCHRANE, HENRY - - -	99	11th Jan. 1868	Machinery or apparatus for making moulds for hollow and other castings, and for testing or proving hollow castings.
COCHRANE, HENRY - - -	1137	4th April 1868	Blast furnaces.
COCKER, RICHARD - - -	632	10th March 1868	Improvements in the treatment of flax, hemp, jute, china grass and other fibrous materials, and in apparatus to be used therein. (Communicated by Robert Hankam Collyer.)
COCKER, RICHARD - - -	1363	25th April 1868	Purifying, seasoning and preserving wood and making it water and fire proof. (Communicated by Theodore William Heine-mann.)
COCKINGS, JAMES SEPTIMUS -	22	3rd Jan. 1868	Certain improvements in welded iron tubes for gas and other purposes where strength and lightness are required.
COCKINGS, JAMES SEPTIMUS -	1911	11th June 1868	Improvements in sewing-machines and for certain parts of the same, which said parts are also applicable to other sewing-machines now in use.
COCKROFT, EZRA - - -	2365	28th July 1868	Looms for weaving.
COCKROFT, EZRA - - -	3855	18th Dec. 1868	Apparatus employed in weaving.
COCKS, JAMES - - -	1036	26th March 1868	Improvements in the making of trowsers and in the manufacture of materials for the same.
COCKSHOOT, JOSEPH, junior -	3188	19th Oct. 1868	Certain improvements in the construction of carriage axles and axle boxes.
COFFEY, DOMINIC - - -	1874	8th June 1868	Locks.
COFFIN, DAVID NEWELL [BROWN, junr]	3251	24th Oct. 1868	Power capstans. (Patented by Bristow Hunt.)
COHEN, BENJAMIN JACOB -	2639	25th Aug. 1868	An improved appliance or apparatus for receiving memoranda, notes or other manuscript communications.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COHN, JULIUS - - -	2752	7th Sept. 1868	An improved meter for water or other incompressible fluid. (Patented by George Davies.)
COIGNARD, LOUIS - - -	3407	10th Nov. 1868	A mode of and means for utilizing the waste heat of furnaces employed in the manufacture of coal gas. (Patented by John Henry Johnson.)
COIGNET (et compagnie) -	1489	6th May 1868	Improvements in the manufacture of steel and iron and other metals, and in furnaces employed in the said manufacture. (Patented by Michael Henry.)
COIGNET, FRANÇOIS - - -	384	3rd Feb. 1868	Treatment of bones. (Patented by John Henry Johnson.)
COIGNET, FRANÇOIS - - -	1422	30th April 1868	Manufacture of gelatine. (Patented by John Henry Johnson.)
COINTREAU, ADOLPHE - - -	2052	26th June 1868	New or improved machinery or apparatus for cleansing or washing bottles. (Patented by Charles Denton Abel.)
COLAS, AUGUSTE - - -	894	16th March 1868	Improvements in the manufacture of wheels for vehicles, and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
COLBURN, ELIJAH - - -	2004	20th June 1868	Machinery for cutting or worming screws.
COLE, ARTHUR - - -	739	4th March 1868	Improvements in and applicable to lamps for burning petroleum, hydrocarbon and other oils.
COLE, ARTHUR - - -	1291	21st April 1868	Improvements in and applicable to lamps in use in railway carriages and in similar situations.
COLE, ISAAC - - -	751	4th March 1868	Sewing-machines.
COLE, JOHN CYRUS - - -	406	6th Feb. 1868	Improvements in drill braces, applicable also to spanners and other like implements.
COLE, JOHN CYRUS - - -	2004	20th June 1868	Machinery for cutting or worming screws.
COLEMAN, WILLIAM JUBY -	212	21st Jan. 1868	Improved apparatus to be employed in the manufacture of beer and wine finings.
COLES, GEORGE - - -	1289	20th April 1868	Manufacture of elastic bands.
COLES, GEORGE - - -	1296	21st April 1868	Improved machinery or apparatus for producing thin strips or filaments from various substances. -
COLETTE, GUSTAVE JULES -	2631	24th Aug. 1868	Holders or protectors for sewing needles.
COLLIGNON, CLAUDIUS OTIG- [NON.	2022	23rd June 1868	An improved construction of folding chair. (Patented by Alfred Vincent Newton.)
COLLIGNON, NICHOLAS - - -	2022	23rd June 1868	An improved construction of folding chair. (Patented by Alfred Vincent Newton.)
COLLINGWOOD, THOMAS BUT- [TERWORTH.	3435	12th Nov. 1868	Machinery for the manufacture of spindles and flyers, part of which machinery is applicable for cutting screw threads for other purposes.
COLLINS, JOHN - - -	692	29th Feb. 1868	Improved apparatus for filling cartridge-cases for breech-loading guns.
COLLINS, JOHN RAISTRICK -	1710	25th May 1868	Looms for weaving.
COLLINS, WALTER HENRY -	1573	14th May 1868	Dress ornaments.
COLLINS, WILLIAM, junior -	8818	30th Oct. 1868	Improvements in separating and feeding or removing paper and other sheets from a pile, and in apparatus therefor.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COLLYER, ROBERT HANHAM -	332	10th March 1868	Improvements in the treatment of flax, hemp, jute, china grass and other fibrous materials, and in apparatus to be used therein. (Patented by Richard Cocker.)
COLTS' PATENT FIRE-ARMS CO	3981	31st Dec. 1868	Improvements in revolving breech-loading fire-arms and in cartridges for the same, and in devices attached to the said fire-arms for charging the cartridges. (Patented by Frederic August Kunow Waldemar Von Oppen.)
COLUMBA, CHARLES - -	3604	26th Nov. 1868	Apparatus to be used in the manufacture and finishing of hats. (Patented by Henry Switkenbank.)
COLVER, HIRAM WALLACE -	573	24th Nov. 1868	Atmospheric hammers for crushing ores and other purposes. (Patented by Henry Edward Newton.)
COMBE, JAMES - - -	43	6th Jan. 1868	Machinery for winding or balling yarn or other twisted material.
COMBE, JAMES - - -	362	3rd Feb. 1868	Machinery for hackling and scutching flax and other fibrous substances.
COMBE, JOHN - - -	1225	13th April 1868	Improvements in breaking, spreading and drawing flax and other fibrous substances, and in machinery to be used in carrying out such improvements.
COMBE, JOSEPH VICTOR -	2792	10th Sept. 1868	Improvements in stamping or embossing horn, leather and other materials, and in the apparatus employed for such purpose. (Patented by George Davies.)
COMFIELD, THOMAS, the [younger.	1967	17th June 1868	Improvements in brakes for railway carriages, and in signalling apparatus in connection therewith, which improvements are also partly applicable to other purposes.
COMMON, ANDREW AINSLIE -	1996	20th June 1868	Manufacture of stretch traps for sinks and drains.
COMYN, THOMAS ROSS -	1589	15th May 1868	Construction of frames and furniture for umbrellas, sunshades, parasols and other such like articles.
CONDY, HENRY BOLLMANN -	490	12th Feb. 1868	Improvements in the manufacture of acetic acid and in the preparation of materials to be used in the said manufacture.
CONNELL, EDWARD O' -	3021	2nd Oct. 1868	Apparatus for supplying nourishment to infants, invalids and others.
CONVERS, JULES - -	1663	20th May 1868	Cranks and crank shafts and axles.
CONYBEARE, HENRY - -	768	5th March 1868	Manufacture of rails for railways.
COOK, HARRY WHITESIDE -	2192	11th July 1868	Construction of armour for the protection of vessels of war, fortifications, batteries and other works of like nature. (Patented by George Davies.)
COOK, HENRY - - -	1155	6th April 1868	Apparatus for the transmission and reception of typographic or autographic telegrams. (Patented by Marc Antoine François Menmons.)



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COOK, HENRY - - -	1419	30th April 1868	An improvement in planing, polishing, turning and other machine-tools or apparatus of like description. (Patented by Marc Antoine François Mençons.)
COOK, HENRY - - -	2192	11th July 1868	Construction of armour for the protection of vessels of war, fortifications, batteries and other works of like nature. (Patented by George Davies.)
COOK, RICHARD - - -	3357	5th Nov. 1868	Manufacture of bobbins, spools, wharles and tubes employed in spinning and twisting wool, worsted, cotton, silk, flax or other fibrous substances.
COOK, THOMAS - - -	235	22nd Jan. 1868	Improved machinery for uniting together materials employed in the manufacture of boots and shoes, saddlery, driving bands, and such like articles as require to be strongly united together.
COOK, THOMAS - - -	380	4th Feb. 1868	Raising or forcing liquids from casks, barrels and other vessels or receptacles.
COOK, THOMAS - - -	2234	15th July 1868	Certain improvements in presses for the expression of oil and other fluids.
COOKE, JOHN - - -	547	19th Feb. 1868	Manufacture of finished irons.
COOKE, JOHN - - -	638	25th Feb. 1868	Signal-indicators applicable to mining and other purposes.
COOKE, JOHN - - -	1279	20th April 1868	Construction of rotary engines and pumps.
COOKE, JOHN FREDERIC -	2163	8th July 1868	Manufacture of copying ink.
COOKE, JOSEPH - - -	2413	10th Nov. 1868	Safety lamps.
COOKE, WILLIAM - - -	547	19th Feb. 1868	Manufacture of finished irons.
COOMBE, JAMES CANE - -	1067	28th March 1868	Coating iron, steel and such like surfaces, and protecting and preserving them from the corrosive action of sea or salt water, and the oxidizing influences of damp air, wet and moisture.
COOMBE, JAMES CANE - -	2816	12th Sept. 1868	Coating iron and steel and protecting such surfaces from the corrosive action of sea or salt water and the oxidizing influences of damp air, wet and moisture.
COOMBE, — - - -	1109	1st April 1868	Cotton gins. (Patented by Robert Joseph Morison.)
COOPER, DUNCAN ANDERSON -	1637	19th May 1868	Solitaires or fastenings for gloves and other articles of dress.
COOPER, GEORGE - - -	3739	8th Dec. 1868	Apparatus for the manufacture of crucibles and other hollow articles from plastic materials.
COOPER, JOHN HENRY - -	953	20th March 1868	Manufacture of boots for hunting, shooting, fishing and other uses.
COOPER, JOSEPH ROCK - -	655	27th Feb. 1868	An improvement or improvements in breech-loading fire-arms.
COOPER, WILLIAM - - -	1745	27th May 1868	An improvement in sliver cans or cotton cans.
COOPER, WILLIAM GILES -	2731	4th Sept. 1868	Looms for weaving.
COPE, EZRA - - - -	2831	15th Sept. 1868	Steam pumping machinery or engines. (Patented by Martin Benson.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COPE, GEORGE - - -	1896	29th April 1868	Machinery for moulding, pressing and stamping cavendish and other tobacco, into any desired form, by suitable die pieces.
COPE, JAMES - - -	2217	14th July 1868	Apparatus to be used in book-binding.
COPE, THOMAS - - -	1396	29th April 1868	Machinery for moulding, pressing and stamping cavendish and other tobacco, into any desired form, by suitable die pieces.
COPLEY, PETER - - -	2643	25th Aug. 1868	Machinery or apparatus for cutting or getting coal, stone and other minerals.
COPONET, GEORGE SPARCIATE	2164	8th July 1868	Printing machines.
COPPARD, JOHN - - -	2617	14th Sept. 1868	Construction of machines for mincing meat and other substances.
COPPÉE, EVENCE - - -	2152	7th July 1868	Construction of coke furnaces.
COPPÉE, EVENCE - - -	2168	8th July 1868	Improved apparatus for crushing and washing coal for the manufacture of coke or artificial fuel.
CORBETT, JOHN - - -	3362	5th Nov. 1868	Railway carriages.
CORBETT, THOMAS - - -	295	28th Jan. 1868	Machinery for cleaning and separating grain and for other like purposes.
CORBETT, WILLIAM - - -	1696	23rd May 1868	Production of iron and steel from ores and from waste products containing iron, as in the cases of hammer slag, forge cinder, and the residue arising from the manufacture of sulphuric acid from iron pyrites.
CORBITT, WILLIAM - - -	2569	17th Aug. 1868	Decorating the surfaces of stoves, grates, fenders and fire-irons.
CORCORAN, BRYAN - - -	2670	28th Aug. 1868	Apparatus for dressing millstones.
CORDEN, WILLIAM - - -	3392	7th Nov. 1868	Lamp globes or glasses.
CORFIELD, THOMAS - - -	2493	10th Aug. 1868	Improvements in the manufacture of paper bags and in the means of closing or fastening the same. (Communicated by Joseph Rapson.)
CORMIER, EDOUARD - - -	1418	30th April 1868	A new or improved mode of soldering tin boxes, canisters or cases. (Patented by Baldwin Fulford Weatherdon.)
CORNES, JOHN - - -	3627	28th Nov. 1868	Improvements in machines for mowing grass, corn crops and other similar produce, for trimming the margins of lawns, also for rolling, collecting and delivering the said crops of corn and other produce into bonds or bands ready for being tied up in sheaves or laid in swarth.
CORNISH, CHARLES L. - - -	528	18th Feb. 1868	Kilns and apparatus employed in the manufacture of bricks. (Patented by William Robert Lake.)
CORNISH, KENNETH HENRY -	1501	7th May 1868	Construction of entrenching tools intended to be applied to fire-arms.
CORPET - - -	1015	25th March 1868	Machinery for the manufacture of paper tubes specially intended for use in spinning machinery. (Patented by Clinton Edgcumbe Brooman.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CORRON, CÉSAR - - -	2441	4th Aug. 1868	Improvements in the process of dyeing textile materials and in the apparatus connected therewith. (Patented by Henri Adrien Bonneville.)
CORTAZZI, EDWARD - -	2709	2nd Sept. 1868	A new system of suspended iron roads or ways, and carriages or vehicles to be used in connection therewith. (Communicated by Casimir de Forel.)
CORYELL, MIERS - - -	3155	15th Oct. 1868	A new and useful improvement in elastic moulds. (Patented by Henri Adrien Bonneville.)
COTTAM, EDWARD - - -	511	15th Feb. 1868	Breech-loading fire-arms.
COTTAM, EDWARD - - -	2768	8th Sept. 1868	Improvements in rolling and shaping iron or other metal for the manufacture of shoes for the feet of horses and other animals, in machinery employed therein, and in tools for preparing the feet for the reception of the shoes.
COTTERILL, JOHN - - -	3739	8th Dec. 1868	Apparatus for the manufacture of crucibles and other hollow articles from plastic materials.
COTTON, CHARLES PHILIP -	3740	8th Dec. 1868	Kilns for calcining limestone, ores and minerals.
COTTON, WILLIAM - - -	3820	16th Dec. 1868	Apparatus for the manufacture of looped fabrics.
COUCHMAN, RICHARD - -	2635	25th Aug. 1868	Dress fastenings and ornamental appendages, such as buttons, studs, clasps, brooches, eardrops or other personal ornaments.
COVINCK, EDMOND, the younger	2662	27th Aug. 1868	An improved press for stamping letters, books and documents, with ink or other coloring matter.
COVINCK, JEAN PRUDENT, [the elder.]	2662	27th Aug. 1868	An improved press for stamping letters, books and documents, with ink or other coloring matter.
COULDRAY, THOMAS, junr. -	1097	1st April 1868	Improvements in pumps for ships and other purposes, and in the construction of buckets or valves for the same.
COULONG, JAMES - - -	3611	26th Nov. 1868	Pneumatic looms.
COURT, JOHN - - - -	1468	5th May 1868	Traps or apparatus for receiving sewage matters and separating the solid from the liquid portion thereof.
COUSTY, PIERRE THÉOPHILE -	2332	24th July 1868	Method of and apparatus for feeding steam-boilers. (Patented by William Edward Gedge.)
COUTY, RÉNÉ - - - -	2230	15th July 1868	Construction of instruments for facilitating vocal instruction at schools.
COVERT, LEWIS BUCKINGHAM	2776	9th Sept. 1868	Extension ladders.
COW, PETER BRUSEY - - -	3301	28th Oct. 1868	Manufacture of tooth brushes and other brushes.
COWAN, DAVID - - - -	2935	24th Sept. 1868	Float valves for the admission of hot and cold water and other fluids into and out of cisterns.
COWAN, WILLIAM - - - -	432	8th Feb. 1868	Construction of the cases of gas meters.
COWELL, HENRY BRIDGE -	3531	20th Nov. 1868	Apparatus for the distribution of water or other liquids in fine particles, which apparatus is also applicable in the distribution of fine particles in powder.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COWING, HENRY - - -	2746	7th Sept. 1868	A steam land locomotive traction engine and its attachments, which make it a universal machine for agriculture and other purposes, which attachments are applicable to horse or ox power as well as steam, and may be called a steam plough and machine of all work.
COWLING, ALFRED - - -	124	14th Jan. 1868	An improvement in the construction or ornamentation of tape measure cases.
COWPER, EDWARD ALFRED -	2259	17th July 1868	A new or improved glass ornament applicable to lace and other fabrics, and the instruments or apparatus employed in the production of the same.
COWPER, EDWARD ALFRED -	3034	3rd Oct. 1868	Improvements in the manufacture of iron and steel, and in the apparatus and materials used for that purpose.
COWPER, EDWARD ALFRED -	3686	21st Dec. 1868	Velocipedes.
COWPERTHWAIT, STEPHEN -	3781	12th Dec. 1868	Machinery for turning materials.
COX, GEORGE ADDISON - -	1385	28th April 1868	Carpets, sackings, checks, bed-ticks or tickings, and other similar textile fabrics.
COX, JOHN - - - -	21	3rd Jan. 1868	Certain improvements in fastenings for sleeve-links, which said improvements are also applicable to the fastening of brooch pin points, belt and other clasps, gloves, stay and legging busks, and other dress and jewellery fastenings.
CRABB, WILLIAM RALPH -	2092	30th June 1868	An improved carriage to be propelled by the manual action of the passenger or passengers.
CRABTREE, CHARLES - -	3553	23rd Nov. 1868	Apparatus employed in the manufacture of paper tubes.
CRAIG, MATTHEW - - -	1695	23rd May 1868	Improved shadowless lamps. (Patented by Edwin Jones.)
CRAIG, THOMAS - - -	1708	25th May 1868	Means or apparatus for hanging and supporting windows, doors, shutters and other such like moveable fittings in houses, vehicles, steam-boats, and other places or structures in which such fittings are used.
CRAIG, THOMAS - - -	3582	25th Nov. 1868	Means or apparatus for hanging and supporting windows, doors, shutters and other such like moveable fittings in houses, vehicles, steamboats and other places or structures in which such fittings are used.
CRAILSHEIM, CHARLES FRÉ- [DÉRIC	2105	1st July 1868	Improvements in bottles for effervescing liquids, and in stoppers for such bottles.
CRAMPTON, THOMAS RUSSELL	2155	7th July 1868	Constructing forts, fortifications or other defences.
CRAMPTON, THOMAS RUSSELL	2539	13th Aug. 1868	Improvements in grinding coal, in preparing coal for burning, in supplying it to furnaces, and in burning powdered coal, also in apparatus to be used for these purposes.
CRAMPTON, THOMAS RUSSELL	3418	10th Nov. 1868	Improvements applicable to furnaces for burning combustible liquids, either alone or in combination with other fuel.
CRANE, JOHN HENRY - -	1526	9th May 1868	Breech-loading fire-arms.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CRANE, PATRICK MOIR - -	3287	26th Oct. 1868	An improved compound or size to be used in sizing and dressing cotton yarns or cotton warps.
CRANE, THOMAS - - -	3063	7th Oct. 1868	Improvements in knitting machinery and in apparatus to be employed with knitting machinery. (Patented by William Edward Newton.)
CRANMER, THOMAS J. -	3164	15th Oct. 1868	Breech-loading volley-firing guns. (Patented by William Robert Lake.)
CRAVEN, ALFRED WINGATE -	1816	3rd June 1868	Pipe joints. (Patented by John Henry Johnson.)
CRAVEN, JOHN - - -	604	24th Feb. 1868	Improvements in the burning of bricks, lime, cement and other like substances, and in the kilns employed therein. (Partly communicated by Friedrich Hoffmann.)
CRAVEN, JOHN - - -	943	19th March 1868	Improvements in the burning and drying of bricks, lime, cement and other like substances, and in the kilns employed therein. (Partly communicated by Friedrich Hoffmann.)
CRAVEN, JOSEPH - - -	1359	25th April 1868	Improved means or apparatus for producing the "barrel fringe" or tassel fringe on shawls.
CRAVEN, PHINEHAS - -	9	1st Jan. 1868	Machinery or apparatus for spinning and doubling fibrous substances.
CRAWFORD, JETHRO BAXTER -	3785	12th Dec. 1868	Tools and mechanism to be used for cutting and dressing stone, rocks or other similar materials.
CREASY WILLIAM - - -	2176	9th July 1868	Machinery and apparatus for drying and otherwise treating grain and other substances.
CRESTADORO, ANDREA - -	1815	3rd June 1868	Means and apparatus for navigating the air.
CRETIN, CLAUDE FRANÇOIS [CONSTANT]	2445	4th Aug. 1868	Lamps for burning gases or oils.
CRETIN, CLAUDE FRANÇOIS [CONSTANT]	3724	7th Dec. 1868	Improvements in lamps for diving operations, and a new method of drawing off foul air from and supplying fresh air to divers and lamps used in diving operations, the first named improvements being also applicable to lamps used in mines or other places where poisonous, explosive and dangerous gases are generated.
CRETIN-BORNE, CLAUDE FRAN- ÇOIS CONSTANT	915	18th March 1868	Improved means or apparatus for ventilating or supplying air to mines and other places.
CREUZBAUR, ROBERT - -	754	4th March 1868	Improved apparatus for measuring spirituous liquors. (Patented by Alfred Vincent Newton.)
CREUZBAUR, ROBERT - -	2084	29th June 1868	Liquid meters. (Patented by Alfred Vincent Newton.)
CRICHTON, DAVID - - -	1150	6th April 1868	Looms for weaving.
CRICHTON, DAVID - - -	3011	1st Oct. 1868	Looms for weaving.
CRIDDLE, WILLIAM JAMES -	3391	7th Nov. 1868	Mode of and apparatus for washing linen and other substances.
CRIGHTON, DUNCAN - - -	1150	6th April 1868	Looms for weaving.
CRIGHTON, DUNCAN - - -	3011	1st Oct. 1868	Looms for weaving.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CRIGHTON, SPENCER - -	3513	19th Nov. 1868	Improvements in machinery or apparatus for grinding "cards" of carding-engines, and in the method of lubricating the bearings of the said apparatus, applicable also to the lubricating of the bearings of other machinery.
CRISPIN, WILLIAM HENRY -	290	28th Jan. 1868	Improved anti-scorbutic biscuits.
CRISPIN, WILLIAM HENRY -	2742	5th Sept. 1868	Manufacture of artificial fuel.
CRITCHLEY, GEORGE - -	3835	17th Dec. 1868	An improved self-acting rack or catch with or without hinge.
CROCKER, WILLIAM HENRY -	2033	24th June 1868	Improvements in and in the manufacture of cartridges suitable for breech-loading fowling pieces and other fire-arms.
CROCKETT, HENRY JAMES -	1820	3rd June 1868	Improvements in venetian blinds, part of which improvements is also applicable to roller blinds.
CROFTS, HOLMES CHENEY -	1590	15th May 1868	Manufacture of bricks or building blocks.
CROFTS, JOHN - - -	1672	21st May 1868	Means or apparatus for combing wool or other fibres.
CROHN, FREDERICK WILLIAM -	998	24th March 1868	Turbine apparatus for obtaining power from a fall of water.
CROMMELIN, THEODORE - -	467	11th Feb. 1868	An improved apparatus for saving life in cases of shipwreck. (Patented by William Edward Newton.)
CROMMELIN, THEODORE -	853	12th March 1868	Ballasting vessels. (Patented by William Edward Newton.)
CROMPTON, GEORGE - - -	2704	1st Sept. 1868	Looms for weaving. (Patented by William Robert Lake.)
CRONIER, JOHN - - -	527	18th Feb. 1868	An improved rotary heel for boots and shoes.
CROOKES, JOSEPH - - -	972	23rd March 1868	Metal ties or bands for securing bales of cotton or other substance. (Patented by William Robert Lake.)
CROOKES, JOSEPH - - -	981	23rd March 1868	Metal ties or bands for securing bales of cotton or other substance. (Patented by William Robert Lake.)
CROSBY, CHAUNCEY ORRIN -	1266	18th April 1868	Improvements in the manufacture of hats and bonnets and in the apparatus employed therein. (Patented by Edward Thomas Hughes.)
CROSBY, CHAUNCEY ORRIN -	2008	22nd June 1868	Machines for polishing needles. (Patented by Edward Thomas Hughes.)
CROSBY, CHAUNCEY ORRIN -	3208	20th Oct. 1868	Improvements in machines for polishing and finishing needles, and in apparatus for arranging the needles for delivery thereto. (Patented by Edward Thomas Hughes.)
CROSKEY, JOSEPH RODNEY -	2431	1st Aug. 1868	Looms for weaving.
CROSKEY, JOSEPH RODNEY -	2509	11th Aug. 1868	Looms for weaving.
CROSLAND, JAMES STEAD -	1123	3rd April 1868	Improvements in or applicable to steam-engines.
CROSS, BENJAMIN CROCKER -	2390	30th July 1868	Apparatus for retarding and stopping carriages.
CROSS, WILLIAM - - -	2876	18th Sept. 1868	Carriage door stops.
CROSSLEY, FRANCIS WILLIAM	1553	13th May 1868	Machinery for breaking the "boon" or refuse portion of flax and other plants, and separating it from the fibres thereof.
CROSSLEY, JAMES - - -	1531	11th May 1868	Looms for weaving.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CROSSLEY, JOHN - - -	1973	18th June 1868	Rails and chairs for railways.
CROSSLEY, JOSEPH - - -	165	17th Jan. 1868	Washing printed and parti-colored yarns.
CROSSLEY, WILLIAM JOHN -	1553	13th May 1868	Machinery for breaking the "boon" or refuse portion of flax and other plants, and separating it from the fibres thereof.
CRULS, AUGUSTE - - -	2794	10th Sept. 1868	An improved press for the manufacture of cement, tiles, patent fuel and other analogous products.
CRUBY, WILLIAM BARKER M <sup>c</sup>	3687	4th Dec. 1868	An improved machine for cutting edible roots. (Patented by William Robert Lake.)
CULLOCH, GILBERT M <sup>c</sup> - -	2071	27th June 1868	Thread polishing machines.
CULLOCH, JAMES M <sup>c</sup> - -	1126	3rd April 1868	Improvements in utilising old or waste tarpaulin, in the manufacture of grease and other useful products, and in apparatus therefor.
CULPIN, THOMAS - - -	3566	24th Nov. 1868	Reaping and mowing machines.
CUNNINGHAM, WILLIAM JOHN	2273	20th July 1868	Means or apparatus for raising and lowering window-blinds, curtains and other articles.
CUNNINGHAM, WILLIAM JOHN	3099	9th Oct. 1868	Manufacture of door plates, name plates, stencil plates and sign plates, suitable for sign boards for the fronts and other parts of shops and other buildings, and for other similar purposes.
CURD, CLAVERHOUSE ALFRED [M <sup>c</sup>	305	29th Jan. 1868	Sewing-machines.
CURD, CLAVERHOUSE ALFRED [M <sup>c</sup>	2358	28th July 1868	Sewing-machines.
CURIE, PAUL - - - -	1630	19th May 1868	Preparation of anhydrous chlorides by means of sulphides or their elements. (Patented by Edward Primerose Howard Vaughan.)
CURIE, PAUL - - - -	3663	18th Dec. 1868	Manufacture of rosin oil. (Patented by Edward Primerose Howard Vaughan.)
CURRIE, THOMAS CHARLES -	1063	28th March 1868	An improved process for the preservation of milk.
CURTIS, CHARLES JOHN -	1311	22nd April 1868	Improvements in the construction of safes or depositories to contain valuable property, and in the locks thereof.
CURTIS, CHARLES JOHN -	2469	7th Aug. 1868	Safes and strong rooms.
CURTIS, WILLIAM JOSEPH -	3103	9th Oct. 1868	Sewing-machines.
CURTISS, SAMUEL, junior -	911	17th March 1868	An improved apparatus for measuring and administering medicine. (Patented by William Edward Newton.)
CUTTER, NORMAN - - -	2996	30th Sept. 1868	Treating metals for the purpose of separating from them various impurities or foreign substances. (Patented by William Edward Newton.)
CUTTER, WILLIAM D. - -	3194	19th Oct. 1868	An improved method of preparing, desiccating and preserving fish. (Patented by William Robert Lake.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CUTMORE, GEORGE WILLIAM -	1926	12th June 1868	Improvements in apparatus for cooling liquids, in connecting pipes or tubes thereto, and in joining or connecting pipes for other purposes.

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DACK, WILLIAM NATHAN -	3019	2nd Oct. 1868	Certain improvements in steam-engines.
DAFT, THOMAS BARNABAS -	14	1st Jan. 1868	Construction of iron ships and vessels.
DAGLISH, WILLIAM -	2097	30th June 1868	Improvements in kilns for burning bricks, tiles and pottery, and in consuming smoke in chemical furnaces and boiler furnaces.
DALE, JOHN GALLEMORE -	1117	2nd April 1868	An improved method of producing white pigments from lead.
DALE, RICHARD FARRELL -	254	24th Jan. 1868	Waterclosets.
DALES, JOHN HANDSLEY -	3620	27th Nov. 1868	Improvements in the mode of and in looms for weaving hair cloth and similar fabrics.
DALMA, AUGUSTE COMBE -	3154	15th Oct. 1868	Manufacture or preparation of artificial fuel. (Patented by William Edward Gedge.)
DALEYMPLE, GEORGE AUGUSTUS FREDERICK ELPHINSTONE.	2999	30th Sept. 1868	Improvements in machinery or apparatus for clipping horses, shearing sheep and other similar purposes, which improvements are also applicable to reaping and mowing machines.
DALTON, JOHN - - -	984	19th March 1868	Certain improvements in the method and arrangement of apparatus for closing dampers, which apparatus may also be employed for measuring liquids.
DALTON, ROBERT ARNOLD -	3448	13th Nov. 1868	A new manufacture of upholstery trimmings woven of silk, worsted and cotton.
DALZIEL, WILLIAM - -	1755	28th May 1868	An improved combination of cock and valve for controlling the flow of water from constant supply pipes.
DAMIEN, EUGÈNE - - -	3908	22nd Dec. 1868	Machinery or apparatus for the manufacture of sheaves or pulleys for hoisting and hauling tackle. (Patented by John Henry Johnson.)
DANA, EDWARD AUGUSTUS -	1853	5th June 1868	Construction of projectiles for rifled cannon or ordnance.
DANCHELL, FREDERICK HAHN	2325	24th July 1868	Certain improvements in the mode of utilizing fuel.
DANCHELL, FREDERICK LUDWIG HAHN.	221	22nd Jan. 1868	Machinery and apparatus for preparing, shaping and drying peat and other vegetable and mineral substances.
DANDO, WILLIAM ELBERT -	3322	30th Oct. 1868	Improved mourning hats.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DANIELL, SAMUEL ALLEN -	3656	1st Dec. 1868	Machinery or apparatus for cleaning bottles and other vessels. (Communicated by John Farmerley Dickson.)
DANIELS, GEORGE - - -	2279	20th July 1868	Improvements in engines or machines for driving drums used with apparatus for cultivating land by steam power, in drums for the same, and in apparatus for moving the machines from place to place.
DANNATT, JAMES - - -	3334	2nd Nov. 1868	An improvement or improvements in garments for saving life in case of immersion at sea or otherwise.
DART, EDWARD - - -	2572	17th Aug. 1868	Improvements in machinery for obtaining motive-power, parts of which improvements are also applicable for other purposes.
DAUDÉ, FRANÇOIS JEAN GUIL- [LAUME.	2140	4th July 1868	An improved fastening for boots, shoes and other articles. (Patented by Alexander Melville Clark.)
DAVEY, HENRY - - -	1033	26th March 1868	Improvements in steam-engines, part of which is applicable to steam pumps.
DAVEY, HENRY - - -	2953	26th Sept. 1868	Improvements in steam-engines, part of which is applicable to steam pumps.
DAVEY, JOHN - - -	2861	17th Sept. 1868	Construction of ploughs.
DAVEY, WILLIAM HOOK -	2590	19th Aug. 1868	Apparatus for drying linen and other fabrics or substances.
DAVID, FRANCISQUE - -	288	28th Jan. 1868	Ribbon looms. (Patented by Henri Adrien Bonneville.)
DAVIDSON, JAMES - - -	184	18th Jan. 1868	Improved machinery for manufacturing bullets.
DAVIES, GEORGE - - -	59	7th Jan. 1868	Mode of combining wrought and cast-iron or other metals for various useful purposes. (Communicated by William Menorice Arnold.)
DAVIES, GEORGE - - -	97	10th Jan. 1868	An improved self-supplying pen. (Communicated by Antoine Edouard Brisbart-Gobert.)
DAVIES, GEORGE - - -	572	20th Feb. 1868	Taps. (Communicated by Joseph Antoine Broquin and Armand Lainé.)
DAVIES, GEORGE - - -	576	21st Feb. 1868	Manufacture of gas for lighting and heating. (Communicated by Louis Charles Emile Vial.)
DAVIES, GEORGE - - -	747	4th March 1868	Manufacture of gas for lighting and heating. (Communicated by Louis Charles Emile Vial.)
DAVIES, GEORGE - - -	935	19th March 1868	Machinery for combing cotton and other fibres. (Communicated by Milton D. Whipple.)
DAVIES, GEORGE - - -	953	21st March 1868	Improvements in apparatus to be used in the manufacture of mill-stones and in the working of hard stones in general. (Communicated by Samuel Golay.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentec.	Number of Patent.	Date.	Subject-matter of Patent.
DAVIES, GEORGE - - -	1052	27th March 1868	Construction, arrangement and application of steam-engines. (Communicated by Ferdinand Michel Ernest Nillus.)
DAVIES, GEORGE - - -	1104	1st April 1868	Construction of centrifugal ventilators or fans. (Communicated by Marc Reichenbach and Samuel Gpaly.)
DAVIES, GEORGE - - -	1146	4th April 1868	Apparatus for washing and separating ores and other materials. (Communicated by Max Braun.)
DAVIES, GEORGE - - -	1886	10th June 1868	Construction of lounging chairs. (Communicated by Auguste Emanuel Eliaers.)
DAVIES, GEORGE - - -	1924	12th June 1868	Cranes. (Communicated by Philippe Louis Henri Charles Lavagne.)
DAVIES, GEORGE - - -	2145	6th July 1868	Locomotive engines. (Communicated by Meliton Martin.)
DAVIES, GEORGE - - -	2148	7th July 1868	Dyeing. (Communicated by Adolphe Jean James D'Andiran and Gustave Wegelin.)
DAVIES, GEORGE - - -	2189	10th July 1868	Filling the spaces between the beams or joists of iron floors and ceilings. (Communicated by Vincent Garcin and Auguste Bourlier.)
DAVIES, GEORGE - - -	2192	11th July 1868	Construction of armour for the protection of vessels of war, fortifications, batteries and other works of like nature. (Communicated by Henry Cook and Harry Whiteside Cook.)
DAVIES, GEORGE - - -	2391	30th July 1868	An improved process for obtaining heliographic plates for printing. (Communicated by Hyacinthe de Font Réaulx and Amédée Barret.)
DAVIES, GEORGE - - -	2392	30th July 1868	An improved pile or portable battery for generating electricity. (Communicated by Alfred Charles Garratt.)
DAVIES, GEORGE - - -	2752	7th Sept. 1868	An improved meter for water or other incompressible fluid. (Communicated by Eduard Schröder and Julius Cohn.)
DAVIES, GEORGE - - -	2782	10th Sept. 1868	Improvements in stamping or embossing horn, leather and other materials, and in the apparatus employed for such purpose. (Communicated by Joseph Victor Combe.)
DAVIES, GEORGE - - -	2839	15th Sept. 1868	An improved machine for hulling and cleaning or polishing coffee, rice and other grain. (Communicated by James Fowle Baldwin Marshall and Augustus Jones.)
DAVIES, GEORGE - - -	3063	8th Oct. 1868	Paper boats. (Communicated by Frank Williams Sargent and John Tyler, junr.)
DAVIES, GEORGE - - -	3971	30th Dec. 1868	Improvements in separating ores and other materials and in apparatus therefor. (Communicated by Max Braun.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DAVIES, HENRY JACKSON -	1484	6th May 1868	Compositions for cleaning gold, silver and plated goods.
DAVIES, JOHN LACEY - -	207	21st Jan. 1868	Certain improvements in the method of retaining and securing corks or stoppers in bottles or vessels containing aerated liquids, and in apparatus connected therewith. (Communicated by Richard Scrieener.)
DAVIES, JOSEPH - - -	181	20th Jan. 1868	Improvements in machinery for shaping malleable materials and in apparatus for constructing the same.
DAVIES, JOSEPH - - -	1890	10th June 1868	Furnaces of salt pans.
DAVIES, JOSEPH CRAWFORD -	627	25th Feb. 1868	Muffs.
DAVIES, MORGAN HENRY -	3425	11th Nov. 1868	Improvements in the construction of fences where strained wire or other strained material is employed, part of which improvements is also applicable to the gearing of cranes, windlasses and other winding barrels, and to other gearing.
DAVIES, SIMEON - - -	2262	18th July 1868	Improvements in fire-irons, part of which invention is applicable to fenders, to stove grates and other fire-places.
DAVIS, CHARLES WILLIAM -	3253	24th Oct. 1868	Manufacture of paper collars, cuffs and similar articles.
DAVIS, FREDERICK WILLIAM	1565	13th May 1868	Harrows.
DAVIS, HENRY - - -	3395	9th Nov. 1868	A combined tobacco dish and cigar and spill rack.
DAVIS, JOHN - - - -	214	21st Jan. 1868	Apparatus for indicating the relative positions and movements of certain of the heavenly bodies. (Patented by John Henry Johnson.)
DAVIS, JOHN - - - -	1651	20th May 1868	Manufacture of artificial fuel.
DAVIS, LEONARD LARBY -	1793	30th May 1868	Spirit levels. (Patented by William Robert Lake.)
DAVIS, RICHARD HARRIS -	2004	20th June 1868	Machinery for cutting or worming screws.
DAVIS, SAMUEL - - -	2245	16th July 1868	Apparatus for clipping horses, sheep or other animals, or the wool or hair from the skins of animals.
DAVIS, WILLIAM - - -	216	21st Jan. 1868	Method of fastening bags made of paper or other material, for the conveyance by post or otherwise of samples of grain, seed, textile fabrics and other articles.
DAWBER, JOHN - - - -	1465	5th May 1868	Certain improvements in steam-engines.
DAWES, WILLIAM - - -	3266	24th Oct. 1868	An improved pulley block.
DAWES, WILLIAM - - -	3299	28th Oct. 1868	Pianofortes.
DAWES, WILLIAM - - -	3765	10th Dec. 1868	Harmoniums and other musical instruments.
DAWS, GEORGE - - - -	2968	30th Sept. 1868	Machinery for opening and closing, locking and unlocking cartgates and turnstiles, or railway level crossings.
DAWSON, JOHN - - - -	76	8th Jan. 1868	Certain improvements in looms for weaving.
DAWSON, JOSEPH - - -	2648	26th Aug. 1868	An improved shaft tug.
DAWSON, RALPH - - -	3134	13th Oct. 1868	Construction of gunboats for coast and harbour defence.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DAWSON, RICHARD - -	1672	21st May 1868	Means or apparatus for combing wool or other fibres.
DAY, AUSTIN GOODYEAR -	2404	31st July 1868	An improved artificial compound chiefly designed for use as a substitute for india-rubber or caoutchouc.
DAY, CHARLES H. - - -	920	18th March 1868	An improved manufacture of covering for floors. (Patented by Alfred Vincent Newton.)
DAY, JOHN MARSH - - -	1081	30th March 1868	Improvements in decorticating seeds and oil nuts, and in the machinery employed therein.
DE AMEZAGA, FRANÇOIS -	3933	24th Dec. 1868	An improved combined boat and carriage designed for use on either land or water, and in apparatus connected therewith. (Patented by William Robert Lake.)
D'ANDIRAN, ADOLPHE JEAN [JAMES.	2148	7th July 1868	Dyeing. (Patented by George Davies.)
D'ASCHAU, MICHAEL ZUMPF -	1340	24th April 1868	A new vegetable medicinal compound to be used as a remedy for the cure of scalds, burns, open wounds, swellings, stiff joints, rheumatics, the gout and other complaints.
DE BEAUMONT, MONSIEUR [EDOUARD.	185	18th Jan. 1868	Ovens or kilns for firing or baking porcelain and various kinds of earthenware or pottery. (Patented by William Edward Newton.)
DE BERGUE, CHARLES - -	982	23rd March 1868	Improvements in locomotive engines, and in the modes of transmitting the power of a locomotive engine to the tender and other carriages of a train, for converting their wheels into driving wheels.
DE BERGUE, CHARLES - -	2226	15th July 1868	Improvements in strong rooms and in safes.
DE BERGUE, CHARLES - -	2634	15th Sept. 1868	Gas cooking stoves.
DE BERGUE, CHARLES - -	3977	31st Dec. 1868	Permanent way-of railways and of street tramways.
DE BRETTE-THURIN, CHARLES FRANÇOIS AUGUSTE VISCOUNT.	179	18th Jan. 1868	A new and improved fly cover for protecting stitified books. (Patented by Henri Adrien Bonneville.)
DE FER, CHARLES JULES DE [BRAS.	3368	6th Nov. 1868	Improvements in the treatment of carbonate of lime for the preparation of pigments therefrom, and in the apparatus employed therein. (Patented by John Henry Johnson.)
DE FOREL, CASIMIR - - -	2709	2nd Sept. 1868	A new system of suspended iron roads or ways, and carriages or vehicles to be used in connection therewith. (Patented by Edward Cortassi.)
DE FOREST, THOMAS BURLOCK	621	25th Feb. 1868	Manufacture of hoop skirts. (Patented by Edward Thomas Hughes.)
DE FOREST, THOMAS BURLOCK (De Forest, Thomas.)	2434	1st Aug. 1868	Bindings for skirts. (Patented by George Tomlinson Bousfield.)
DE FORNARI, THE MARQUIS [ERNEST.	3475	16th Nov. 1868	Improvements in the shape and casting of missiles and in the apparatus connected therewith. (Patented by Henri Adrien Bonneville.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DE FORVILLE, EMILE VIA- [RENGO.	881	16th March 1868	An improved machine for crushing and sifting flour.
D'HURCOURT, EDOUARD AR- [MAND.	354	1st Feb. 1868	Improvements in the mode of utilizing and increasing the lighting power of gases and inflammable vapors, and in apparatus connected therewith. (Patented by Alexander Melville Clark.)
DE JEAN, GASTON MARCELIN	3642	30th Nov. 1868	A new or improved material for the manufacture of tiles for roofing purposes. (Patented by Alexander Melville Clark.)
DE LA RUE, WILLIAM [FREDERICK.	1057	27th March 1868	Whist counters.
DE LA THIBAUDIERE, HENRY-	3503	18th Nov. 1868	An improved liquid or composition for oiling or greasing wool and other textile materials. (Patented by Clinton Edgcombe Brooman.)
DE LIN, CHARLES - - -	3154	15th Oct. 1868	Manufacture or preparation of artificial fuel. (Patented by William Edward Gedge.)
DE LONGUEUIL, CHARLES JAMES IRWIN GRANT, BARON.	1631	19th May 1868	Construction of pipes for smoking. (Patented by Edward Primerose Howard Vaughan.)
DE MANKOWSKI, CASIMIR [COMTE.	961	21st March 1868	Means and appliances for conveyance, transport and locomotion. (Patented by George Macdona and Osborne Hilliard.)
DE MASSAS, FRANÇOIS AN- [TOINE EDMOND GUIRONNET.	1142	4th April 1868	Machinery for cleaning cotton seeds.
DE MASY, JOSEPH - - -	2853	16th Sept. 1868	Improvements in cases for holding railway tickets, and in mechanism for withdrawing railway tickets from the said cases.
DE METZ, AUGUSTUS - -	588	22nd Feb. 1868	Commode pots or vessels to be used as waterclosets or for other purposes.
DE METZ, AUGUSTUS - -	1122	3rd April 1868	Commodities or vessels to be used as waterclosets, expectorating utensils, or for other purposes.
DE MORGNY, ONÉSIME - -	1215	11th April 1868	Wet gas-meters. (Patented by Ernest Dubois and Edward Casper.)
D'O'LY, JOHN FRANCIS - -	1274	18th April 1868	Paddle and other wheels used in air or water, for propelling or driving ships or vessels or machinery.
DE PONTCHALON, EDOUARD [DES FRANÇOIS.	1	1st Jan. 1868	Apparatus for regulating the speed of steam and other engines, and for indicating the power of the same. (Patented by William Robert Lake.)
DE REDON, JEAN - - -	3242	23rd Oct. 1868	Improvements in the manufacture of cigars and cigarettes, and in the apparatus for effecting the same.
DE RÉSNER, PAUL HENRI [FERDINAND.	3387	7th Nov. 1868	Machinery or apparatus for cutting screw threads. (Patented by John Henry Johnson.)
DE RUSSETT, EDWIN WILLIAM	254	24th Jan. 1868	Waterclosets.
DE RUSSETT, EDWIN WILLIAM	1699	23rd May 1868	Engines worked by steam or other motive fluid, specially applicable to steam pumps.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DE SAINTE MARIE, GEORGES -	1574	14th May 1868	An improved mode of coloring or ornamenting capsules, tubes and metallic foil.
DE STAINS, VICTOR - -	2005	22nd June 1868	Construction, propulsion and guidance of boats or other vessels.
DE VILLEPOIX, GUSTAVE -	533	18th Feb. 1868	An improved vegetable extract for culinary purposes. (Patented by Alexander Melville Clark.)
DE WISSOCQ, PAUL EMILE -	3400	9th Nov. 1868	Treating lead ores.
DEA, ROGER - - -	2858	16th Sept. 1868	A combination pulverizing plough.
DEACON, HENRY - - -	1408	29th April 1868	Manufacture of chlorine.
DEACON, HENRY - - -	3098	9th Oct. 1868	Manufacture of sulphuric acid.
DEACON, SOLOMON - - -	2257	17th July 1868	An improved fastening especially applicable as a sash fastening.
DEAN, GEORGE ALFRED HENRY	1543	12th May 1868	Envelopes. (Communicated by Charles Marshall.)
DEAN, WILLIAM - - -	2110	2nd July 1868	Machinery or apparatus employed for stopping the loom upon the breaking of a weft thread or threads.
DEANE, EDWARD - - -	2584	19th Aug. 1868	A new and improved stove and cooking apparatus, by which a saving of fuel is effected.
DEANE, WILLIAM FRANCIS -	2072	27th June 1868	Obtaining oxide of manganese from a certain residual product of the manufacture of chlorine.
DEARLE, JOHN HALES - -	2557	15th Aug. 1868	Tents.
DEAS, GEORGE - - -	980	21st March 1868	Improvements in hats and other coverings to the head, to obtain ventilation and comfort in wear. (Patented by Isaac Solly Lister.)
DEATH, EPHRAIM - - -	2933	24th Sept. 1868	Pumping apparatus.
DEATH, EPHRAIM - - -	2934	24th Sept. 1868	Apparatus for cutting leather, wood, paper, card or other material.
DRAUBEUF, VICTOR ADOLPHE	970	23rd March 1868	Machinery or apparatus for the manufacture of compressed or moulded fuel from small coal and other material.
DEBENHAM, WILLIAM ELLIOTT	1735	26th May 1868	Wrist-bands, cuffs, collars and other such like articles of wear.
DEBLON, ANTOINE JULIEN -	3456	13th Nov. 1868	An improved expansive condensing and rotary steam-engine.
DEBLON, CHARLES JUSTIN -	2011	22nd June 1868	Machinery or apparatus for the manufacture of cards for carding. (Patented by William Armand Gilbee.)
DEBRÉ AND GRANGE - -	2126	3rd July 1868	Machinery or apparatus for the manufacture of paper pulp. (Patented by John Henry Johnson.)
DEBRUYN, FRANÇOIS LOUIS -	2270	20th July 1868	Machinery for preparing, spinning and doubling cotton and other fibrous substances. (Patented by Henry Bernoulli Barlow.)
DÉCOMBES, VICTOR - -	2010	22nd June 1868	Improved means of indicating whether the doors of railway or other carriages are securely fastened or simply closed. (Patented by William Edward Gedge.)
DECOUDUN, JULES - - -	1627	18th May 1868	Apparatus for ironing and finishing linen and other fabrics. (Patented by Alexander Melville Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DEFIENNE, LOUIS DÉSIRÉ -	1610	16th May 1868	Lamps for burning mineral oils and essences. (Patented by Alexander Melville Clark.)
DEFRIES, HENRY - - -	617	25th Feb. 1868	Manufacture of opal or glass lamp and gas globes, chimneys and shades of every description.
DEIGHTON, WILLIAM - -	3277	26th Oct. 1868	Looms for weaving.
DELAFIELD, CLARENCE - -	1693	22nd May 1868	An improvement in furnaces to be used in oxydizing lead or in the manufacture of litharge.
DELAGE, JEAN - - -	2803	11th Sept. 1868	An improved mode of annealing gauze wire. (Patented by Edward Thomas Hughes.)
DELAPLACE, ADOLPHE - -	3944	26th Dec. 1868	An improved portable lamp or lantern. (Patented by Clinton Edgumbe Brooman.)
DELÉGUE, JEAN LOUIS - -	3055	7th Oct. 1868	An improved textile fabric applicable as blankets for printing presses and for other useful purposes. (Patented by John Henry Johnson.)
DELIGNY, ERNEST - - -	1841	5th June 1868	Improvements in converting basic phosphates of lime into soluble acid phosphates of lime, and in obtaining and utilizing sulphate of lime. (Patented by Michael Henry.)
DELIGNY, ERNEST - - -	1885	9th June 1868	Treatment of oxide of iron with a view to its use in blast furnaces. (Patented by John Henry Johnson.)
DELLAGANA, BARTHOLOMEW -	25	3rd Jan. 1868	Improvements in printing machines and in the manufacture of electrotpe blocks to be used in such machines.
DELLAGANA, JAMES - - -	25	3rd Jan. 1868	Improvements in printing machines and in the manufacture of electrotpe blocks to be used in such machines.
DELPEDANGE, VICTOR - -	1874	27th April 1868	Construction and modes of connecting pipes or tubes of metal or other material.
DEMME, MAURICE - - -	1962	17th June 1868	An improved dial or indicating needle case.
DEMOOR, HONORÉ - - -	2789	10th Sept. 1868	Railway fastenings. (Patented by Alfred Buckingham Ibbotson.)
DENAYROUZE, AUGUSTE - -	3175	16th Oct. 1868	Improvements in dresses and in head gear or helmets for divers.
DENDY, JOHN - - -	1411	30th April 1868	Woven fabrics.
DENDY, JOHN - - -	3447	13th Nov. 1868	Improved arrangements of warps in sizing or dressing machines and looms, and in the machinery or apparatus connected therewith.
DENLEY, JOHN - - -	3152	14th Oct. 1868	A new or improved coffee pot.
DENNIS, LOUIS HENRY - -	2589	19th Aug. 1868	An improved compound for tanning leather. (Patented by Alexander Clark.)
DENNIS, THOMAS HUNGATE [PRESTON.]	1942	13th June 1868	An improved horizontal tubular boiler.
DENNIS, WILLIAM - - -	234	22nd Jan. 1868	Letter boxes, letter pillars and such like depositories.
DENNIS, WILLIAM - - -	2309	22nd July 1868	Letter boxes, letter pillars and such like depositories.
DENTON, HENRY - - -	3705	5th Dec. 1868	Chain and other harrows and apparatus or machinery connected therewith.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DEPREZ, JEAN MATHIEU -	1524	9th May 1868	Breech-loading fire-arms. (Patented by Alexander Melville Clark.)
DER MADE, JOHANNES MA- [RINUS VAN.	1188	7th April 1868	Apparatus for the consumption of smoke. (Patented by Henry James Ditmars.)
DER POPPENBURG, JOHANN [VON.	1950	15th June 1868	Breech-loading fire-arms.
DER SMISSSEN, LOUIS VAN -	1743	27th May 1868	Certain improvements in the permanent way of railways. (Patented by Henri Adrien Bonneville.)
DER WEYDE, M. MICHEL VAN	1237	15th April 1868	Certain improvements in the arrangement and construction of submerged or sub-aqueous lamps, and in the fluid used in and adapted to such lamps. (Patented by George Glover.)
DERMER, THOMAS - - -	3157	15th Oct. 1868	An improved method of and apparatus for fastening scarves and other similar articles.
DERMOTT, CHARLES MC -	977	23rd March 1868	An improved indelible pencil for marking linen and other fabrics.
DERMOTTS, JOHN M <sup>c</sup> - -	1979	18th June 1868	Improvements in dressing flax, and in drawing, roving and spinning flax and tow, and in apparatus to be used for these purposes. (Patented by Thomas Comings Hide.)
DEROCHE, FRANÇOIS - -	2645	25th Aug. 1868	Improvements in breech-loading fire-arms and in the mode of capping or priming the same. (Patented by Alexander Melville Clark.)
DERRINY, JULES - - -	3430	11th Nov. 1868	Cylinder printing machines. (Patented by Alexander Melville Clark.)
DESBOIS, JEAN ALFRED - -	2013	22nd June 1868	Machinery or apparatus for winding thread. (Patented by Alexander Melville Clark.)
DESBONNET, ALEXANDRE -	3190	17th Oct. 1868	An improved lantern or lighting apparatus.
DESBOROUGH, SPENDLOVE -	822	10th March 1868	Apparatus for cleaning and polishing knives, forks or other articles or surfaces.
DESCAT, CONSTANTIN - -	3534	20th Nov. 1868	Mode of fixing colours on textile fabrics composed of wool and cotton.
DESCHAMPS, THEODORE - -	2287	21st July 1868	An improved fastening for gloves.
DESENS, LOUIS - - -	375	4th Feb. 1868	Construction of miners' lamps.
DESENS, LOUIS - - -	2691	19th Sept. 1868	Construction of miners' safety lamps.
DESENS, LOUIS - - -	3826	16th Dec. 1868	Miners' lamps.
DESNOS, CHARLES - - -	1159	6th April 1868	Permanent way of railways. (Communicated by Mr. Charles Ferdinand Zords.)
DESNOYERS, ISIDORE AGNAN -	788	6th March 1868	Construction of steam-boilers. (Patented by John Garrett Tongue.)
DESPECHER, HENRY GUILLE- [MAUT.	1712	25th May 1868	Improvements in rotary engines or apparatus, applicable also as a pump, blower or liquid meter. (Patented by Alexander Melville Clark.)
DESPOIT, GEORGES BOSSIERE [AND COMPANY.	1725	26th May 1868	Decolorizing tannin juices. (Patented by Clinton Edgumbe Brooman.)
DÉTOUCHE, LOUIS CONSTANTIN	693	29th Feb. 1868	Apparatus for registering the number of passengers travelling by public conveyances and the amount of fares paid.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DEVERNA, WILLIAM EDWARD	487	13th Feb. 1868	A new or improved fastener applicable as a substitute for buckles and such like purposes.
DEVOR, FREDERICK WILLIAM	1809	2nd June 1868	Cans and other vessels for containing liquid and other substances. (Patented by William Edward Newton.)
DEWAR, JAMES - - -	376	4th Feb. 1868	Preserving animal substances for use as food.
DEWAR, JAMES - - -	726	3rd March 1868	Preserving blood for use as food.
DEWAR, JAMES - - -	1351	24th April 1868	Making and preserving manure.
DEWAR, JAMES - - -	1578	14th May 1868	Preserving certain vegetable substances for use as food for animals.
DEWAR, JAMES - - -	1860	6th June 1868	Preserving and arresting decay in certain vegetable substances for the purposes of food and manure.
DEWAR, JAMES - - -	3086	8th Oct. 1868	Preparing food from the entrails of animals.
DEWAR, JAMES - - -	3087	8th Oct. 1868	Improvements in making and preserving manure, and in deodorising offensive substances.
DEWDNEY, JAMES - - -	2882	18th Sept. 1868	Steam-boilers.
DEWE, JOHN - - -	2199	11th July 1868	Locks. (Patented by Clinton Edgcumbe Brooman.)
DEWHURST, HENRY - -	2520	12th Aug. 1868	An improved process of ornamenting seal-skin cloths.
DEWHURST, JOHN WILLIAM -	2520	12th Aug. 1868	An improved process of ornamenting seal-skin cloths.
DEWHURST, ROBERT ELLIS -	2520	12th Aug. 1868	An improved process of ornamenting seal-skin cloths.
DEXANT, JEAN JEAN - -	1180	8th April 1868	Cartridges for breech-loading fire-arms.
DICK, CHARLES JAMES [ADOLPHUS.]	1801	2nd June 1868	Apparatus for preventing incrustation in steam-boilers. (Patented by Edward Primerose Howard Vaughan.)
DICKERSON, EDWARD NICOLL	337	31st Jan. 1868	Steam-engines. (Patented by John Henry Johnson.)
DICKINS, ALBERT LUNGLEY -	3618	27th Nov. 1868	Machinery or apparatus for washing and dyeing silk and other yarns.
DICKINS, THOMAS - - -	3618	27th Nov. 1868	Machinery or apparatus for washing and dyeing silk and other yarns.
DICKINS, WILLIAM - - -	209	21st Jan. 1868	Manufacture of boots and shoes.
DICKINSON, BENJAMIN - -	2893	19th Sept. 1868	Improvements in treating the leaves of the tea plant and other similar materials, and in machinery and apparatus to be employed therefor.
DICKINSON, BENJAMIN - -	2894	19th Sept. 1868	Improvements in withering and desiccating the leaves and flowers of plants and other vegetable substances, and in the apparatus to be employed therein.
DICKINSON, BENJAMIN - -	3328	31st Oct. 1868	Improvements in propelling and manoeuvring ships and other vessels, and in the apparatus and means employed for such purposes.
DICKINSON, HENRY JOHN -	244	23rd Jan. 1868	Tables adapted to be employed for playing billiards or other games with balls, and also for dining or other uses.
DICKINSON, JOHN REED -	1510	8th May 1868	Apparatus or means for protecting the points of brushes and pencils.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DICKINSON, THOMAS - - -	277	27th Jan. 1868	Apparatus for drawing off water.
DICKSON, JAMES - - -	771	5th March 1868	Lubricators or tallow feeders.
DICKSON, JOHN - - -	3673	19th Dec. 1868	Arrangement and construction of windows.
DICKSON, JOHN FARMERLEY -	3656	1st Dec. 1868	Machinery or apparatus for cleaning bottles and other vessels. (Patented by Samuel Allen Daniell.)
DIETZ, ANDREW - - -	1399	28th April 1868	An improved method or process of treating or preparing and refining glue.
DIMOCK, IRA - - -	895	16th March 1868	Machinery for combing cotton and other fibrous materials. (Patented by Peter Joel Livsey.)
DINWOODIE, WILLIAM - -	3572	24th Nov. 1868	Fences.
DITMARS, HENRY JAMES -	1166	7th April 1868	Apparatus for the consumption of smoke. (Communicated by Augustus Wilhelms and Johannes Marinus Van der Made.)
DIVINE, SILAS - - -	3393	7th Nov. 1868	Cooling and harring soap. (Patented by George Tomlinson Bousfield.)
DIX, ALEXANDER MILLS -	1535	11th May 1868	An improved mode of and apparatus for supplying finings or other liquids to casks or other vessels.
DIXON, CHARLES WILLIAM -	261	25th Jan. 1868	Improvements in rotating slide valves, and for improved suitable modes of applying these said and other rotating valves to certain kinds of engines.
DIXON, EDWARD - - -	3421	11th Nov. 1868	An invention for the better, more securely and quickly packing bottles of every description, such invention is adaptable to boxes, cases and refrigerators.
DIXON, EDWYN JOHN JEFFERY	1027	26th March 1868	Machinery for reducing, planing, smoothing, facing or otherwise working and manufacturing slate, slate slabs and other stone and materials.
DIXON, FREDERICK - -	1567	13th May 1868	Construction of packing cases or boxes for holding bottles containing liquids.
DIXON, FREDERICK - -	3421	11th Nov. 1868	An invention for the better, more securely and quickly packing bottles of every description, such invention is adaptable to boxes, cases and refrigerators.
DIXON, GEORGE - - -	1555	13th May 1868	Manufacture of upholsterer's fringes and other trimmings.
DIXON, JOHN - - -	222	22nd Jan. 1868	Construction of floating saloon-baths.
DIXON, JOSEPH - - -	1742	27th May 1868	An improved coupling link for railway vehicles and other purposes. (Communicated by Aimé Durieux.)
DOBBS, JOHN - - -	625	25th Feb. 1868	Ventilation of hats and similar coverings for the head.
DOBBS, WILLIAM - - -	625	25th Feb. 1868	Ventilation of hats and similar coverings for the head.
DOBSON, BENJAMIN - -	320	30th Jan. 1868	Machines for spinning and doubling.
DOBSON, BENJAMIN - -	2798	11th Sept. 1868	Wood-cutting machinery.
DOBSON, BENJAMIN - -	3306	29th Oct. 1868	Certain improvements in machinery for preparing cotton and other fibrous substances.
DOBSON, HENRY ARNOLD -	454	11th Feb. 1868	An improved carriage spring.
DODD, JOHN - - -	133	15th Jan. 1868	Machinery for cutting grass and corn.

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## ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DODD, THOMAS - - -	2053	26th June 1868	Improved apparatus or arrangements for covering and uncovering railway trucks and waggons.
DODD, THOMAS - - -	3325	31st Oct. 1868	Certain improvements in machinery or apparatus for cracking nuts.
DODDS, WILLIAM BROWN -	3001	30th Sept. 1868	Apparatus for obtaining motive-power and for propelling vessels.
DODGE, GEORGE POMEROY -	554	19th Feb. 1868	Manufacture of india-rubber valves, valve seats and other similar articles.
DODGE, GEORGE POMEROY -	555	19th Feb. 1868	Packing for the stuffing boxes of steam-engines and for other like purposes.
DÖRING, FREDERICK BERNARD	1512	8th May 1868	An improved mode of and apparatus for securing or holding the stands or frames of rock-boring or excavating machines, part of which apparatus is applicable to connecting such machines with their stands or frames.
DÖRING, FREDERICK BERNARD	1989	19th June 1868	Machinery for boring or working in rock, stone or earth.
DÖRING, FREDERICK BERNARD	2965	26th Sept. 1868	Machinery for boring or working in rock, stone or earth.
DOHERTY, WILLIAM - - -	2165	8th July 1868	Certain improvements in agricultural apparatus termed "chaff cutters."
DOLBY, THOMAS GEORGE [FONNEREAU.	192	20th Jan. 1868	Feeding bottles.
DOLBY, THOMAS GEORGE [FONNEREAU.	2702	1st Sept. 1868	Application and construction of valves made of india-rubber or other similarly elastic material.
DOMENECH, JOSE MARIA -	363	3rd Feb. 1868	Combined photographic apparatus for outdoor operations.
DON, THOMAS - - - -	738	4th March 1868	Improved machinery and appliances for preparing, cleaning, screening, decortiating and grinding wheat and other grain, and separating and collecting the several products thereof.
DON, THOMAS - - - -	1227	14th April 1868	Improvements in manufacturing wheat and other grain into meal and flour, and in machinery and appliances for that purpose.
DONALD, JOHN M <sup>c</sup> - - -	528	18th Feb. 1868	Kilns and apparatus employed in the manufacture of bricks. (Patented by William Robert Lake.)
DONALD, JOHN CAMERON MAC	3470	14th Nov. 1868	Improvements in the manufacture of stereotype printing surfaces, and in machinery for printing and receiving sheets of paper as they come from the printing machine, and also for cutting into sheets rolls of paper.
DONALDSON, ISAAC HUNTER -	3121	12th Oct. 1868	An improved mode of making and fastening together bedsteads.
DONBAVAND, WILLIAM - -	1150	6th April 1868	Looms for weaving.
DONBAVAND, WILLIAM - -	3011	1st Oct. 1868	Looms for weaving.
DONELL, DONALD L. M <sup>c</sup> -	1318	22nd April 1868	Paddle-wheels for vessels. (Patented by William Edward Newton.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DONISTHORPE, GEORGE ED- [MUND.	68	7th Jan. 1868	Construction of and mode of fixing joints, catches or other fastenings for brooches and other ornaments, and ornamental mountings and fittings for furniture and articles of vertu.
DONISTHORPE, GEORGE ED- [MUND.	1223	13th April 1868	Apparatus for getting coal and other minerals.
DONISTHORPE, GEORGE ED- [MUND.	3300	28th Oct. 1868	Packing the pistons and other parts of steam and other engines.
DONISTHORPE, WORDSWORTH	3441	12th Nov. 1868	Machinery for getting coal and minerals, part of which invention is applicable also to steam hammers and other similar reciprocating machinery.
DONNELL, EUGENE M <sup>c</sup> - -	1382	28th April 1868	An impervious concrete or cement.
DONNELL, JAMES O' - -	415	7th Feb. 1868	Apparatus for raising and lowering venetian and other blinds.
DOOLY, MARTIN HENRY -	443	8th Feb. 1868	Improvements in railway switches and in adjusting and signalling devices for the same. (Patented by William Robert Lake.)
DORE, WILLIAM - - -	3197	20th Oct. 1868	Certain improvements in motive-power engines.
DORNING, WILLIAM JOHN -	3040	6th Oct. 1868	Hydraulic presses employed in the packing of cotton or other materials or substances.
DORRITY, DANIEL - - -	3675	3rd Dec. 1868	Mechanical means for locking printers' forms, as well as for mounting or fitting pieces on the beds or tables of planing machines and for other cognate purposes.
DORSETT, EDWARD - -	176	18th Jan. 1868	Improvements in the utilization of coal tar and the products arising from the distillation thereof, and in the apparatus employed therein.
DOTY, HENRY HARRISON -	1098	1st April 1868	Means or apparatus for producing the more complete combustion of gas, paraffin and other liquid hydrocarbons.
DOTY, HENRY HARRISON -	2179	9th July 1868	Lamps for signalling and telegraphing at sea and on railways, lighting ships, docks, railway carriages and other similar purposes.
DOUGALL, ARTHUR M <sup>c</sup> - -	270	25th Jan. 1868	Apparatus for burning, calcining or roasting sulphur, ores and other materials.
DOUGALL, ARTHUR M <sup>c</sup> - -	3506	18th Nov. 1868	Manufacture of phosphatic manures and sulphate of ammonia.
DOUGLAS, ALEXANDER - -	2020	23rd June 1868	Reaping and mowing machines.
DOUGLAS, CHARLES - -	1190	8th April 1868	Improvements in cutting the teeth of wheels and in apparatus employed therein.
DOUGLAS, JOHN - - -	2020	23rd June 1868	Reaping and mowing machines.
DOUGLAS, JOHN GEORGE -	825	10th March 1868	Valve motions for oscillating cylinder engines.
DOVER, GEORGE - - -	3768	11th Dec. 1868	Improved appliances to be adapted to horse-shoes as a substitute for what is termed "roughing."
DOWELL, JAMES - - -	651	26th Feb. 1868	Locks.
DOWELL, WILLIAM - - -	651	26th Feb. 1868	Locks.
DOWLING, ROBERT - - -	3238	23rd Oct. 1868	Improvements in bottles particularly intended for containing poisons, and in stoppers for the same.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DOWNING, CAMERON MAC- [ARTNEY HARWOOD.	2018	23rd June 1868	Improvements in fire-arms, in the method of discharging them, and in the cartridge.
DOWS, GUSTAVUS DAVIS -	353	1st Feb. 1869	Improved apparatus for manufacturing and storing aerated waters, and for transferring these and other liquids from one vessel to another. (Patented by Adolphus Clark.)
DRABBLE, JOHN - - -	1771	29th May 1868	Certain improvements in machinery for the manufacture of roll or twist tobacco.
DRACOPULO, GEORGE SINEFI -	613	24th Feb. 1868	A new apparatus for raising or forcing water, applicable to ships, mines and other purposes.
DRACOPULO, GEORGE SINEFI -	2632	24th Aug. 1868	A new apparatus for raising or forcing water, applicable to ships, mines and other purposes.
DRAKE, CHARLES - - -	1364	25th April 1868	Improvements in constructing concrete buildings and in apparatus used therein.
DRAKE, HARRY - - -	767	5th March 1868	Preparation of essences suitable for soups and sauces.
DRAKE, THOMAS - - -	1757	28th May 1868	A machine or apparatus to be employed for receiving communications, orders, messages and appointments.
DRAKE, WALTER - - -	421	7th Feb. 1868	Machinery or apparatus employed in the cutting of wood laths and for other similar purposes.
DRAPER, EBENEZER D. - -	307	29th Jan. 1868	Steam fireproof safes. (Patented by William Snell.)
DRAYSON, ALFRED WILKS -	3507	18th Nov. 1868	An improved mode of and apparatus for cooling wort and other liquids.
DREAPER, WILLIAM HENRY -	3563	23rd Nov. 1868	Construction of pianoforte hammers.
DRECHSLER, FRANCIS JOSEPH	2089	30th June 1868	Construction of boilers and furnaces, stoves or heating apparatus.
DREYFOUS, SAMUEL - -	1298	21st April 1868	An improved apparatus for removing the cotton from cotton pods. (Communicated by Michel Alcan.)
DRINHAUS, RUDOLPH EUGEN	2410	31st July 1868	A new or improved instrument to be used in the treatment of rheumatism and other diseases. (Communicated by Charles Bauschmidt.)
DRIVER, JEREMIAH - -	1577	14th May 1868	Effecting the consumption of smoke and economy of fuel in steam-boiler and other furnaces.
DRUMMOND, DAVID - -	1908	11th June 1868	Certain improvements in valves.
DRUMMOND, SAMUEL - -	1486	6th May 1868	Improvements applicable to the prevention of fraud in the collection of fares in omnibusses and other carriages, and in apparatus connected therewith.
DRURY, ROBERT FRANCIS -	3024	2nd Oct. 1868	Improvements applicable to ratchet and crank braces, and other tools or apparatus wherein centre points and pivots are required.
DU BREUIL, LE COMTE HENRY [DE LA TOUR.	1500	7th May 1868	An improved mode of renovating files by an electro-chemical process. (Patented by Arthur Charles Henderson.)
DU MOTAY, CYPRIEN MARIE [TESSIÉ.	1513	8th May 1868	Preparing zirconia and the employment of the same to develop the light of oxy-hydrogen flame. (Patented by Clinton Edgcombe Brooman.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DU MOTAY, CYPRIEN TESSIÉ -	1831	4th June 1868	Apparatus for the manufacture or production of carbonic oxide, hydrogen and carbonated hydrogens. (Patented by Clinton Edgcumbe Brooman.)
DU MOTAY, CYPRIEN TESSIÉ -	1833	4th June 1868	Improvements in the manufacture or transformation of iron and steel, and in apparatus employed therein. (Patented by Clinton Edgcumbe Brooman.)
DUBOIS, AMBROISE - -	1740	26th May 1868	Apparatus for dressing millstones. (Patented by Alexander Melville Clark.)
DUBOIS, ERNEST - - -	1215	11th April 1868	Wet gas-meters. (Communicated by Onésime de Morgny.)
DUBRUEIL, EMILE LEON -	561	19th Feb. 1868	Improvements in the manufacture of nails and in machinery or apparatus employed in the said manufacture. (Patented by Michael Henry.)
DÜBS, HENRY - - -	2488	8th Aug. 1868	A steam crane and locomotive engine combined.
DUCHESNE, JEAN BAPTISTE [ABEL.]	3652	1st Dec. 1868	Improvements in the manufacture of mineral teeth and in the method of fixing such mineral teeth to the dental piece. (Patented by Henri Adrien Bonneville.)
DUCK, GEORGE NIXON - -	2511	12th Aug. 1868	Manufacture of iron and steel.
DUER, SIDENHAM - - -	957	20th March 1868	Manufacture of packing for stuffing-boxes, pistons and bearings. (Partly communicated by Ernest Thorold.)
DUFFY, CHARLES GAVAN -	1176	7th April 1868	Destroying the decaying principle in animal substances and articles of food and organic matter, by means of a railroad atmospheric process. (Patented by Patrick M'Mahon.)
DUFFY, MARY ANN - - -	1684	20th May 1868	An improved device for marking and creasing tucks in cloth or other material, upon a sewing-machine. (Patented by William Robert Lake.)
DUFILHOL, ADRIEN MARIE -	526	18th Feb. 1868	An improved method of shoeing horses and other beasts of burden.
DUFORT, JEAN HIPPOLYTE -	1111	1st April 1868	Sewing-machines.
DUFRENÉ, HECTOR AUGUSTE -	758	5th March 1868	Covers or capsules for jars, pots and other vessels. (Communicated by Monsieur Henry Viollet.)
DUFRENÉ, HECTOR AUGUSTE -	1720	25th May 1868	Construction of railway wheels, pistons and other articles made of wrought iron. (Communicated by Monsieur Benoit Charvet.)
DUFRENÉ, HECTOR AUGUSTE -	2354	27th July 1868	An improved indicator of time and distance for vehicles, applicable also for registering the speed of the said vehicles and the number of passengers carried by the same. (Communicated by Monsieur Louis Edouard Hannecart.)
DUGUID, JOHN, the younger -	2251	17th July 1868	Improvements in the manufacture of paper and in the means employed therefor.
DUGUID, JOHN, the younger -	2393	30th July 1868	Apparatus for finishing or dressing flour.
DULAC, LOUIS - - -	2302	22nd July 1868	Improvements in drying and beating all kinds of threads, and in combining apparatus for that purpose.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DUMAS, FRANÇOIS - - -	654	27th Feb. 1868	Bathing dresses for the treatment of skin and other diseases.
DUMONT-HUSSON - - -	2977	29th Sept. 1868	An improved swimming apparatus which may also serve as a safety belt. (Patented by William Edward Gedge.)
DUNBAR, JAMES - - -	1152	6th April 1868	Improvements in the construction and arrangement of machinery or apparatus for supplying coal, cannel or other substances, to retorts or ovens, and for withdrawing the same after distillation, also improvements in retorts, retort chambers, mouthpieces, doors, covers or lids.
DUNCAN, ROBERT - - -	2972	28th Sept. 1868	Earth closets and commodes.
DUNHAM, WILLIAM - - -	2670	28th Aug. 1868	Apparatus for dressing millstones.
DUNKERLEY, JOSEPH - - -	680	28th Feb. 1868	Certain improvements in the method of manufacturing hats or coverings for the head, and in apparatus employed therefor.
DUNN, JOSEPH BRAGG - - -	56	7th Jan. 1868	An improved buckle or tie for connecting the ends of metallic straps applied to bales of cotton and other merchandize.
DUNN, WILLIAM - - -	2932	24th Sept. 1868	An improved method of and means for connecting pipes, tubes, cocks and other similar articles.
DUPREE, JOHN - - -	3065	7th Oct. 1868	Improvements in the construction of sieves and in apparatus for working the same.
DURAND, LOUIS - - -	2017	22nd June 1868	Production of a red color for dyeing and printing. (Patented by John Henry Johnson.)
DURFER, ZOETH - - -	2186	10th July 1868	An improved wooden pavement. (Patented by Edward Thomas Hughes.)
DURHAM, WILLIAM - - -	2844	15th Sept. 1868	An improved mode of preserving or protecting from corrosion, wire webs and strainer plates used in the manufacture of paper.
DURIEUX, AIMÉ - - -	1742	27th May 1868	An improved coupling link for railway vehicles and other purposes. (Patented by Joseph Dixon.)
DUSART, LUCIEN - - -	2157	7th July 1868	Improvements in the treatment of phosphates of lime and in obtaining products therefrom. (Patented by Astley Paston Price.)
DUSEIGNEUR-KLÉBER, EUGENE	940	19th March 1868	Improvements in doubling, twisting and throwing silk and in apparatus therefor. (Patented by John Lewis Geiger.)
DUTTON, EDWARD KENWORTHY	856	13th March 1868	Sewing-machines.
DUTTON, EDWARD KENWORTHY	969	23rd March 1868	Valves employed to regulate the flow of water.
DUTTON, EDWARD KENWORTHY	8706	5th Dec. 1868	"Gig mills" employed in the finishing of woven fabrics. (Communicated by Adolph Moser.)
DYER, FREDERICK - - -	2888	19th Sept. 1868	Method of and apparatus for supplying bath rooms and other parts of dwelling houses and similar buildings with hot water.
DYER, THOMAS WASHBOURNE	3097	9th Oct. 1868	Improved apparatus for the preventing and curing smoky chimnies.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DYK, PIETERS VAN - -	3399	9th Nov. 1868	Man engines for raising water and lowering and raising men. (Patented by William Morgan-Brown.)
E.			
EADES, WILLIAM - - -	2254	17th July 1868	Apparatus for obtaining and communicating motive-power specially applicable for lifting weights.
EADES, WILLIAM THOMAS -	2254	17th July 1868	Apparatus for obtaining and communicating motive-power specially applicable for lifting weights.
EAMES, CHARLES JAMES -	1602	15th May 1868	An improved mode of embalming or preserving dead bodies. (Patented by William Robert Lake.)
EAST, RICHARD - - -	1039	26th March 1868	Improved mechanical arrangements applicable to steam-boilers and the cylinders of steam and other motive-power engines, for preventing the priming thereof, and for lubricating the pistons and cylinders of engines.
EASTERBROOK, WALTER -	509	15th Feb. 1868	Machinery or apparatus for actuating, locking, interlocking and controlling railway points and signals.
EASTWOOD, JAMES - - -	777	6th March 1868	Improvements in machinery for preparing size, and in machinery or apparatus to be employed in the sizing of yarn and other fibrous materials and fabrics.
EASTWOOD, JOHN - - -	1765	28th May 1868	Improvements in steam generators and in apparatus for heating the feed water therefor.
EATON, EDWIN AUSTEN - -	307	29th Jan. 1868	Steam fireproof safes. (Patented by William Snell.)
ECKHARDT, ALBERT FRIED- [RICH.	2626	24th Aug. 1868	An improved mode or system of preparing and manuring grain and other seeds and roots, before sowing or planting.
ECKHOLD, CHARLES AUGUSTE [CONSTANTIN.	1859	6th June 1868	A new and improved apparatus for levelling and measuring distances, altitudes and angles. (Patented by Henri Adrien Bonneville.)
ECKHOLD, CHARLES AUGUSTE [CONSTANTIN.	3759	10th Dec. 1868	A new and improved apparatus for measuring distances, altitudes and angles. (Patented by Henri Adrien Bonneville.)
EDGLEY, JOHN ALFRED - -	2763	8th Sept. 1868	Improvements in hollow caps and stoppers, and the employment of them with bottles and other vessels, and in the machinery, apparatus or means to be used for producing part of the same, also improvements in the articles to be employed with such or other caps, and the means for constructing them.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
EDLICH, BERNHARD - -	3702	5th Dec. 1868	Wheels for railway carriages and other vehicles of like description. (Patented by Bristow Hunt.)
EDMESTON, ARCHIBALD - -	1727	26th May 1868	Machinery or apparatus for printing hanks of yarns or threads and warps, with one or more colors.
EDMESTON, CHARLES - -	1727	26th May 1868	Machinery or apparatus for printing hanks of yarns or threads and warps, with one or more colors.
EDMESTON, GRAY DENISON -	2551	15th Aug. 1868	Improvements in or applicable to lathes, and in mechanism for varying rotating speeds, applicable to other tools, machines and shafting.
EDMESTON, THOMAS - -	1904	11th June 1868	Furnaces for steam-boilers and other purposes.
EDMONDSON, JAMES - -	2838	15th Sept. 1868	Certain improvements in the method of fastening or securing the metallic hoops used in packing bales.
EDMONDSON, RICHARD - -	435	8th Feb. 1868	Healds for weaving.
EDRIDGE, JOHN - - -	3858	18th Dec. 1868	Improvements in tinning pins and other small articles, and in machinery or apparatus to be used for that purpose.
EDWARDS, EDMUND - -	2457	6th Aug. 1868	Pumps.
EDWARDS, ERNEST - -	2201	13th July 1868	Photography.
EDWARDS, GEORGE HENRY -	3769	11th Dec. 1868	Construction of breech-loading fire-arms.
EDWARDS, JOB - - -	932	19th March 1868	Props or supports for supporting the roofs of coal or other mines.
EDWARDS, JOHN - - -	1804	22nd April 1868	Railway point indicators.
EDWARDS, JOHN - - -	3364	5th Nov. 1868	Harness and connections for connecting the same to carriages.
EDWARDS, WILLIAM - -	551	19th Feb. 1868	Roughening the shoes of horses and other beasts of draught and burden.
EDWARDS, WILLIAM - -	2566	17th Aug. 1868	Sewing-machine needles.
EGERSDORFF, EDWIN - -	286	28th Jan. 1868	Tips for boot heels.
EGGLETON, JASON - - -	142	16th Jan. 1868	Manufacture of "bellows regulators" for water-closets.
EGUILLON, GILBERT - -	3533	20th Nov. 1868	Mode of suspending bells by means of three oscillating levers.
EHRHARDT, WILLIAM - -	3942	24th Dec. 1868	Watches.
EICHBAUM, GEORGE ADOLPHUS [FITZMAURICE.]	502	14th Feb. 1868	Means or apparatus for indicating the amount of money received by omnibus conductors and other persons.
EIFFLER, CHARLES HERRMAN	422	7th Feb. 1868	Locks. (Patented by William Robert Lake.)
ELAM, WILLIAM - - -	2094	30th June 1868	Mechanism or apparatus to be employed for numbering and printing tickets consecutively.
ELCE, JOHN - - - -	620	25th Feb. 1868	Lubricating the spindles of machines for spinning and doubling.
ELCE, JOHN - - - -	1636	19th May 1868	Temples employed in looms for weaving.
ELCE, JOHN - - - -	3199	20th Oct. 1868	Certain improvements in mules for spinning and doubling.
ELDER, DAVID - - - -	1959	16th June 1868	Improvements in dredging machines and in apparatus connected therewith.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ELDRIDGE, GEORGE - -	669	27th Feb. 1868	Means of closing or stoppering bottles and vessels for containing aerated and other liquids or fluids.
ELDRIDGE, GEORGE - -	3947	26th Dec. 1868	Apparatus for closing casks and filling and drawing off liquid therefrom.
ELIAERS, AUGUSTE EMANUEL	1686	10th June 1868	Construction of lounging chairs. (Patented by George Davies.)
ELLAND, DAVID - - -	495	14th Feb. 1868	Improved apparatus for signalling in railway carriages between drivers and guard.
ELLENBAND, ELIAS - -	3598	25th Nov. 1868	Improved apparatus for threading domestic needles. (Communicated by Jacob Huzarski.)
ELLERSHAUSEN, FRANCIS -	1076	30th March 1868	Improvements in the manufacture of cast steel and malleable iron from cast iron, and in the apparatus or means employed therein. (Patented by John Henry Johnson.)
ELLERSHAUSEN, FRANCIS -	1078	30th March 1868	Improvements in the manufacture of cast steel and in furnaces to be employed therein, which furnaces are also applicable to the re-melting of metals generally. (Patented by John Henry Johnson.)
ELLERSHAUSEN, FRANCIS -	1130	3rd April 1868	Improvements in the manufacture of cast steel and malleable iron from cast iron, and in the apparatus or means employed therein. (Patented by John Henry Johnson.)
ELLERSHAUSEN, FRANCIS -	3565	23rd Nov. 1868	Improvements in converting cast iron into wrought iron, and in uniting oxides, fluxes and other substances with molten cast iron. (Patented by Charles Denton Abel.)
ELLIN, THOMAS SKEVINGTON	114	11th Jan. 1868	An improved self-securing skate. (Communicated by John Forbes.)
ELLIOTT, ARTHUR - - -	1007	25th March 1868	Apparatus for lubricating axles and bearings and other frictional surfaces.
ELLIOTT, CHARLES ALFRED -	889	16th March 1868	Telescopes. (Communicated by Pierre Gabriel Bardou and Denis Albert Bardou.)
ELLIOTT, FREDERICK HENRY -	689	16th March 1868	Telescopes. (Communicated by Pierre Gabriel Bardou and Denis Albert Bardou.)
ELLIOTT, JOHN - - -	2603	21st Aug. 1868	Apparatus for cutting, dressing, bevelling and moulding stone and other hard substances.
ELLIS, PETER - - -	3662	2nd Dec. 1868	Letter boxes and bags for receiving letters.
ELLIS, PETER - - -	3663	2nd Dec. 1868	An improved public conveyance or omnibus, parts of which invention are applicable to other carriages.
ELLIS, WILLIAM - - -	282	27th Jan. 1868	Improvements in or applicable to circular or rotating machines for cutting wood by hand or steam power, for making laths, cards, strips or slices of wood and other articles.
ELLIS, WILLIAM IRLAM -	2247	17th July 1868	Cranes.
ELLISON, CAIN - - -	3778	12th Dec. 1868	Improved means or apparatus to be used in measuring the human body for garments.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ELLISON, JAMES CHARLES -	107	11th Jan. 1868	Machinery for folding fabrics, and also for inserting papers, metallic plates or other suitable substances between the folds of fabrics, for pressing.
ELLWOOD, JOHN - - -	2933	24th Sept. 1868	Pumping apparatus.
ELLWOOD, JOHN - - -	2934	24th Sept. 1868	Apparatus for cutting leather, wood, paper, card or other material.
ELSDON, ROBERT - - -	1854	5th June 1868	Improvements in the manufacture of glass or similar vitreous substances, and in the application of such substances in the construction of buildings.
ELSDON, ROBERT - - -	2041	24th June 1868	Improvements in burning lime and cement, and in apparatus employed therein.
EMMERSON, JOHN THOMAS -	28	4th Jan. 1868	Improvements in the manufacture of iron and in the application thereof to certain useful purposes.
ENCAUSSE, LOUIS - - -	942	19th March 1868	Improvements in the application of remedial agents to the human frame and in the apparatus employed therein.
ENGLAND, WILLIAM - - -	1657	20th May 1868	Improved apparatus for measuring liquids.
ENGLEBT, GOTTLÖB - - -	1937	13th June 1868	An improved apparatus for cooling beer and other malt liquors.
ENGLISH, THOMAS - - -	3844	17th Dec. 1868	Construction of tubes or cylinders capable of resisting great internal pressure.
ENSELL, HENRY CAUSER -	2600	20th Aug. 1868	Improvements in smelting copper and other metals, and in furnaces for smelting copper and other metals and for other purposes, and in obtaining products from the gases and vapours given off during the smelting of copper and other metals.
ERNI, LEONARD - - -	1504	7th May 1868	Sewing-machines. (Patented by John Henry Johnson.)
ERSKINE, FRANCIS - - -	3784	12th Dec. 1868	Improvements in means or arrangements for economising fuel and consuming smoke, applicable to steam-boiler and other furnaces.
ERSKINE, JAMES - - -	1261	17th April 1868	An improvement in the manufacture of breech-loading fire-arms.
ESCHELVIES, VON - - -	3113	10th Oct. 1868	Apparatus for separating and cleaning sharps or middlings, groats of wheat and other partially ground grain. (Patented by Robert Tod.)
ESKRETT, CYRUS - - -	3053	6th Oct. 1868	Envelopes or "hairs" used in extracting oil from oleaginous seeds and oil-cake making.
ESPEUT, WILLIAM BANCROFT	2558	15th Aug. 1868	Improvements in curing, drying and extracting molasses or liquid from sugar and other substances, and in apparatus employed therein.
ESSICK, SAMUEL V. - - -	3686	4th Dec. 1868	Knitting machines. (Patented by William Robert Lake.)
ESTOR, WILLIAM - - -	1457	4th May 1868	Means of and apparatus for preserving animal and vegetable substances.
ESTOR, WILLIAM - - -	3067	7th Oct. 1868	Improvements in the means of disinfecting or deodorizing rooms, buildings and ships, applicable also to other such like purposes.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ETEV, STANLEY - - -	50	7th Jan. 1868	The publication and distribution of certain journals, almanacks, books, papers, &c., which in themselves form a complete system of business and other advertisements. (Communicated by Jean Charles Carol and Oscar Ollivier.)
ETIENNE-GUYOT, LOUIS AU- [GUSTE.	3577	25th Nov. 1868	Watches. (Patented by Bristow Hunt.)
EVANS, DANIEL - - -	2611	21st Aug. 1868	Improvements in the manufacture of metallic casks, cans, kegs and cisterns, and metal casings for bottles, barrels and other vessels, and also in tools employed in such manufacture.
EVANS, EDWARD - - -	2446	4th Aug. 1868	Mills for grinding wheat, grain and other substances.
EVANS, EVAN - - -	3100	9th Oct. 1868	Improvements in the mode of propelling boats on canals and other narrow water-courses, and in the mode of constructing such said boats.
EVANS, HENRY SUGDEN -	1249	16th April 1868	Taps, valves, or apparatus for measuring and registering the quantity of liquid passed therethrough.
EVANS, JAMES - - -	2713	2nd Sept. 1868	Machinery for finishing and welding iron and steel tubes.
EVANS, ORMEROD COFFEEN -	2797	11th Sept. 1868	Improvements in the mode of constructing girders and other parts of bridges, and beams and girders and other parts in other structures and superstructures, part of such improvements being applicable to spring bottoms for bedsteads, mattresses, sofas or other articles.
EVANS, ROBERT - - -	1507	7th May 1868	Machinery or apparatus for dressing mill-stones.
EVANS, ROBERT - - -	1508	7th May 1868	Bolters used for dressing flour and for other like purposes.
EVERARD, HENRY WILLIAM -	1706	25th May 1868	Certain improvements in articles of wearing-apparel called "braces."
EVERARD, JOHN BREEDON -	3824	16th Dec. 1868	Machines for drilling or boring rocks.
EVERICKX, CHARLES JOSEPH -	2721	3rd Sept. 1868	An improved portable or camp bedstead and travelling trunk combined. (Patented by Alexander Melville Clark.)
EVERITT, LANCELOT HOPE -	1370	27th April 1868	Improvements in telegraphy, and in the construction and arrangement of apparatus for communicating signals and intelligence. (Patented by Edward Primerose Howard Vaughan.)
EVERITT, WILLIAM EDWARD -	1429	1st May 1868	Manufacture of copper, brass and metal tubes.
EVERITT, WILLIAM EDWARD -	1520	9th May 1868	Casting copper tubes and cylinders.
EVERITT, WILLIAM EDWARD -	1824	3rd June 1868	An improvement or improvements in the manufacture of tubes for marine boilers, surface condensers and other similar purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
EVOTTE, CHARLES - - -	2543	14th Aug. 1868	A portable machine for turning, dividing and cutting wooden cogs of cog wheels of all descriptions and sizes, either in building shops or manufactories, when such wheels require to be supplied with fresh cogs.
EVOY, HENRY M <sup>c</sup> - - -	51	7th Jan. 1868	Fastenings for drapery, articles of dress or wearing-apparel.
EXHENRY, CLEMENT - - -	993	24th March 1868	Watches, chronometers and clocks. (Patented by Charles Denton Abel.)
EYLAND, EDWARD SAMUEL -	3252	24th Oct. 1868	Construction of conservatories, glass houses, and structures in which capability of contraction and expansion may be desired.
EZARD, CHARLES - - -	3139	14th Oct. 1868	An improved top bar for fire-places.

## F.

FABER, EBERHARD - - -	1684	21st May 1868	Frictional gearing. (Patented by Robert Rayner.)
FABRE, ERANÇOIS - - -	1907	11th June 1868	Manufacture of bricks used for building and other purposes. (Patented by Alexander Melville Clark.)
FAIRBURN, EDWARD - - -	1823	3rd June 1868	Condensers for working wool or other fibrous substances.
FAIRBURN, HENRY GEORGE -	1252	17th April 1868	Portable machinery for turning, screw-cutting, boring and slotting, also for cutting off tubes or solid bars into any required lengths.
FAIRLIE, ROBERT FRANCIS -	1321	22nd April 1868	Improvements in railway carriages and wag-gons, and in the means of coupling them together to form trains.
FAJEN, GUSTAV - - -	3287	27th Oct. 1868	Ventilators or smoke exhausters applicable to chimneys of dwelling houses and other similar buildings.
FALCONER, JOHN - - -	3560	23rd Nov. 1868	Manufacture of felted fabrics, and wearing apparel and other articles from the same. (Patented by William Edward Newton.)
FANSHAWE, JOHN AMERICUS -	1289	20th April 1868	Manufacture of elastic bands.
FANSHAWE, JOHN AMERICUS -	1296	21st April 1868	Improved machinery or apparatus for producing thin strips or filaments from various substances.
FARCOT, JEAN JOSEPH LEON -	1680	21st May 1868	Governors for steam and other motive-power engines. (Patented by William Edward Newton.)
FARCOT, JEAN JOSEPH LEON -	2476	7th Aug. 1868	Improved apparatus or mechanism for regulating the speed or power of machinery. (Patented by William Edward Newton.)
FARCOT, MARIE JOSEPH DENIS	1680	21st May 1863	Governors for steam and other motive-power engines. (Patented by William Edward Newton.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FARCOT, MARIE JOSEPH DENIS	2476	7th Aug. 1868	Improved apparatus or mechanism for regulating the speed or power of machinery. (Patented by William Edward Newton.)
FARCOT, MICHEL BASILE ABEL	1680	21st May 1868	Governors for steam and other motive-power engines. (Patented by William Edward Newton.)
FARCOT, MICHEL BASILE ABEL	2476	7th Aug. 1868	Improved apparatus or mechanism for regulating the speed or power of machinery. (Patented by William Edward Newton.)
FARGÈRE, ANTOINE - -	180	18th Jan. 1868	Ribbon looms. (Patented by Henri Adrien Bonneville.)
FARLAND, DAVID M <sup>c</sup> - -	1817	3rd June 1868	Railway trucks or vehicles. (Patented by John Henry Johnson.)
FARLANE, JOHN M <sup>c</sup> - -	2508	11th Aug. 1868	Rollers for paper making machines.
FARMER, BENJAMIN - -	512	15th Feb. 1868	Improved breaking and crushing and hammering machinery, useful for crushing stone and minerals, and hammering iron, steel, brass, copper and other substances, and in forming wrought steel bells.
FARMER, JOHN STINSON -	987	24th March 1868	Improvements in the apparatus for and in the means of communicating or transmitting signals between the parts of a railway train, and for signalling on railways in connection with train working.
FARMER, WILLIAM - - -	2004	20th June 1868	Machinery for cutting or worming screws.
FARRAR, CHARLES - - -	3727	8th Dec. 1868	Machinery or apparatus for reducing wood to fibres, filaments, shavings or fragments, to be employed in the manufacture of paper, bonnets, matches and scale boards, and for other useful purposes.
FARRAR, JABEZ BUNTING -	1282	20th April 1868	Spinning and doubling machinery.
FARRAR, JABEZ BUNTING -	1795	1st June 1868	Improvements in or applicable to machinery or apparatus for spinning or twisting fibrous substances.
FARRAR, JOHN ALCOCK - -	997	24th March 1868	Improvements in ship's hatches and in ventilating the holds and cabins of ships.
FARRAR, JOHN ALCOCK - -	3200	20th Oct. 1868	Improvements in the hatches and cabin tops of ships, and for ventilating and other purposes.
FARROW, CHARLES - - -	1558	13th May 1868	Apparatus for cleansing bottles, jars and casks.
FARWELL, WILLARD BRIGHAM	2220	14th July 1868	An improved method of and apparatus for heating railway carriages.
FARWIG, JULIUS AUGUSTUS -	3731	8th Dec. 1868	Manufacture of sheet-metal casks.
FAUCHEUX, RAOUL PAUL -	552	19th Feb. 1868	Improvements in reels or bobbins and in means or apparatus to be applied thereto.
FAUCHEUX, THEODORE - -	1140	4th April 1868	Construction of axles of the wheels of railway rolling stock and other vehicles, and other axles and driving shafts.
FAUCHEUX, THEODORE - -	3242	23rd Oct. 1868	Improvements in the manufacture of cigars and cigarettes, and in the apparatus for effecting the same.
FAULKNER, HUGH - - -	2282	20th July 1868	Manufacture of flexible tubes or hose.
FAULKNER, TOM HENRY -	2804	11th Sept. 1868	Improvements in the manufacture of umbrellas and parasols, and in the production of fabrics suitable for use in this manufacture and for other purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FAURÉ, RAYMOND FRANÇOIS -	1829	4th June 1868	Construction of ploughs. (Patented by William Edward Gedge.)
FAURÉ, RAYMOND FRANÇOIS -	3679	3rd Dec. 1868	Construction of ploughs. (Patented by William Edward Gedge.)
FAURIE, ANTOINE - - -	3589	25th Nov. 1868	A novel system of tug or tow-boat. (Patented by William Edward Gedge.)
FAWCETT, JAMES - - -	1281	20th April 1868	Steam-boilers or apparatus for generating steam.
FAWCETT, JOHN - - -	95	10th Jan. 1868	An improved manufacture of cattle food.
FAWCETT, JOSEPH ADDEY -	1281	20th April 1868	Steam-boilers or apparatus for generating steam.
FAWCETT, JOSEPH ADDEY -	3701	5th Dec. 1868	Means or apparatus for supplying steam-boiler and other furnaces with fuel, and for promoting and regulating the combustion thereof.
FAY, SAMUEL - - - -	310	29th Jan. 1868	An improved machine for opening and cleaning cotton, applicable also for other purposes. (Patented by William Tasker.)
FEAR, HENRY - - - -	2307	22nd July 1868	Door springs and spring hinges.
FEARING, HENRY L. - -	3819	27th Nov. 1868	Oil cups or lubricators for machinery. (Patented by William Edward Newton.)
FELL, JOHN BARRACLOUGH -	766	5th March 1868	Improvements in or applicable to locomotive engines, carriages and permanent way.
FELL, RICHARD - - - -	1754	23rd May 1868	Apparatus for preventing waste of water in or from waterclosets, and drinking fountains, cisterns, tanks and other like receptacles.
FENDER, DAVID - - - -	2118	2nd July 1868	Thrashing machines.
FENN, JAMES C. - - - -	920	18th March 1868	An improved manufacture of covering for floors. (Patented by Alfred Vincent Newton.)
FENNELLY, RICHARD - -	575	20th Feb. 1868	An improved method and apparatus for singeing off the hairs, bristles and other matters on pigs, in order to prepare them for being converted into bacon.
FENTON, ALBERT - - - -	3517	19th Nov. 1868	Needle cases.
FER, CHARLES JULES DE BRAS [DE.]	3368	6th Nov. 1868	Improvements in the treatment of carbonate of lime for the preparation of pigments therefrom, and in the apparatus employed therein. (Patented by John Henry Johnson.)
FERGUSON, BENBOW BRUNS- [WICK.]	2376	29th July 1868	An improved compound to be used as a substitute for linseed oil in the preparation of paint and varnish. (Patented by William Robert Lake.)
FERGUSON, HENRY - - - -	1714	25th May 1868	Machinery for cutting tenons and shoulders.
FERGUSON, ROBERT EDMUND -	2376	29th July 1868	An improved compound to be used as a substitute for linseed oil in the preparation of paint and varnish. (Patented by William Robert Lake.)
FERNIE, JOHN - - - -	3643	30th Nov. 1868	Casting plough heads, wheels and crank axles.
FERRABEE, JAMES - - - -	1722	26th May 1868	Improved machinery for feeding carding-engines.
FERRIE, WILLIAM - - - -	1410	30th April 1868	Blast furnaces.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FERRIE, WILLIAM - - -	1888	10th June 1868	Improvements in and connected with smelting or blast furnaces.
FIDDES, AUGUSTINE - -	1811	22nd April 1868	Improvements in the construction of safes or depositories to contain valuable property, and in the locks thereof.
FIDDES, AUGUSTINE - -	2469	7th Aug. 1868	Safes and strong rooms.
FIDLER, THOMAS CLAXTON -	2399	30th July 1868	Rolling stock of railways.
FIDLER, THOMAS CLAXTON -	3625	16th Dec. 1868	Improvements in the rolling stock of railways and tramways, also in traction engines and other vehicles.
FIELD, ABRAHAM - - -	3125	12th Oct. 1868	Manufacture of show-boards, tablets or cases containing representations, announcements, illustrations or devices, for advertising and other purposes.
FIELD, EDWARD - - -	1408	30th April 1868	Apparatus for effecting the separation or removal of foreign matters or impurities from water.
FIELD, JAMES - - -	3678	3rd Dec. 1868	Construction of cataract and other lenses for defective visions.
FIELD, TELFORD - - -	1790	30th May 1868	Improved arrangements for manœuvring gunboats and other floating vessels.
FIELD, THOMAS - - -	866	13th March 1868	An improved apparatus or instrument for clipping or shearing the hair of horses and other animals.
FIELDEN, JOHN - - -	1837	4th June 1868	Improvements in obtaining hydraulic motive-power, which improvements are also applicable to the propulsion of vessels by jets or streams of water.
FIELDHOUSE, JOHN - -	2688	31st Aug. 1868	Furnaces of steam-boilers.
FIGON, FELIX - - -	3259	24th Oct. 1868	Machinery for apparatus for cleaning and decorticating cotton. (Patented by Samuel Clark.)
FILDES, JOHN GUEST - -	1062	28th March 1868	An improved bearer or support for conveying ladles containing molten metal.
FINLAY, JAMES - - -	1568	13th May 1868	Axles and axle-boxes. (Patented by William Edward Newton.)
FINNEGAN, GEORGE - -	1864	6th June 1868	Band-saw machines.
FINNEY, WILLIAM SMITH -	828	10th March 1868	Improved apparatus for lubricating machinery. (Patented by Alfred Vincent Newton.)
FIRTH, CHARLES HENRY -	2306	22nd July 1868	Looms for weaving.
FIRTH, EDWARD - - -	1893	10th June 1868	Reaping and mowing machines.
FIRTH, EDWIN - - -	2306	22nd July 1868	Looms for weaving.
FIRTH, JAMES - - -	1893	10th June 1868	Reaping and mowing machines.
FIRTH, JOSIAH - - -	2306	22nd July 1868	Looms for weaving.
FIRTH, SAMUEL - - -	600	22nd Feb. 1868	Machinery for cutting coal, stone or other minerals.
FIRTH, THOMAS FREEMAN -	2306	22nd July 1868	Looms for weaving.
FIRTH, WILLIAM - - -	118	13th Jan. 1868	Valves made from india-rubber or other similar elastic material, the said valves being applicable in the construction of fluid or gaseous pumps, enemas, syringes, spray producers, and other instruments where valves are in use.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FIRTH, WILLIAM - - -	193	20th Jan. 1868	Application of vulcanized or unvulcanized india-rubber in the construction of pumps, enemas, syringes, spray producers and such like instruments.
FIRTH, WILLIAM - - -	1839	4th June 1868	Deodorizing petroleum and other oils.
FISCHER, CARL GOTTHELF -	633	25th Feb. 1868	Machinery for grinding or preparing wood for the manufacture of paper. (Patented by Carl Pieper.)
FISCHER, WILLIAM - - -	1703	23rd May 1868	An improved apparatus for causing the circulation of water in steam-boilers. (Patented by Francis Wirth.)
FISHER, EUGENE - - -	1944	13th June 1868	An improved tonic effervescing drink.
FISHER, GEORGE SMITH - -	170	17th Jan. 1868	An improved implement for cutting hay, straw and other like substances.
FISHER, GEORGE SMITH - -	187	18th Jan. 1868	Links or couplings for harness and other purposes.
FISHER, GEORGE SMITH - -	2243	16th July 1868	An improved implement for cutting hay, straw and other like substances. (Patented by William Robert Lake.)
FISHER, GEORGE SMITH - -	2244	16th July 1868	Links or couplings for harness and other purposes. (Patented by William Robert Lake.)
FISHER, HENRY - - -	1170	7th April 1868	Constructing the handles of tea-pots, coffee-pots or other vessels intended to contain heated liquids.
FISHER, SAMUEL - - -	1016	25th March 1868	Ornamentation of tiles to be used for the purposes of mural and other decoration.
FISHER, THOMAS - - -	3005	1st Oct. 1868	An improved device for supporting the ends of rollers for blinds, maps and other articles.
FITCH, WILLIAM - - -	3196	19th Oct. 1868	Improvements in the carriages for ordnance, and in devices for operating the same and checking the recoil thereof. (Communicated by George Robert Wilson.)
FITHIAN, LEMUEL SCUDDER -	3574	24th Nov. 1868	Improved gearing for multiplying motion on a single shaft. (Patented by Henry Edward Newton.)
FITTER, JAMES - - -	1192	9th April 1868	Alarums of the kind known as detonating alarums.
FITTER, JOSEPH - - -	3732	8th Dec. 1868	Manufacture of the nuts or screw boxes of table expanders.
FITTON, EDWARD GERRARD -	2154	7th July 1868	Machines for hackling, combing, cleaning, preparing and spinning flax, tow, jute, hemp and other fibrous substances.
FITZGERALD DANIEL - - -	2	1st Jan. 1868	Fire and burglar proof safes. (Patented by William Robert Lake.)
FITZ-GERALD, DESMOND GE- [RALD.	2576	18th Aug. 1868	A new or improved mode of constructing electric telegraphs and voltaic batteries.
FLACHFELD, JULIUS - - -	1633	19th May 1868	A new manufacture of cases for pipes and tubes used in smoking. (Communicated by Josef Leiter.)
FLEET, EDWARD - - -	335	31st Jan. 1868	Apparatus for the manufacture of aerated liquids.
FLEETWOOD, DANIEL JOSEPH	2939	24th Sept. 1868	Improvements in and applicable to hydraulic and other presses, parts of which improvements may be employed for or with other descriptions of machinery.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[For

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FLETCHER, ADDISON CALVIN -	1689	22nd May 1868	Grate-bars. (Patented by William Edward Newton.)
FLETCHER, ADDISON CALVIN -	2947	25th Sept. 1868	Improvements in adhesive stamps applicable for postal, internal revenue and other purposes. (Patented by William Edward Newton.)
FLETCHER, HENRY - - -	847	12th March 1868	An improved method of obtaining and applying motive-power.
FLETCHER, JOHN - - -	1698	23rd May 1868	Revolving retorts for the manufacture and reburning of animal charcoal.
FLETCHER, JOHN, senr. - -	2549	15th Aug. 1868	Machinery for grinding sand and other substances.
FLETCHER, JOHN, judr. - -	2549	15th Aug. 1868	Machinery for grinding sand and other substances.
FLETCHER, JOHN MOSS - -	3075	8th Oct. 1868	Improvements in recreative games played with balls and cues, and in the tables and apparatus connected therewith. (Patented by Edward Joseph Hughes.)
FLETCHER, WILLIAM - - -	2549	15th Aug. 1868	Machinery for grinding sand and other substances.
FLETCHER, WILLIAM SANDERS	2684	31st Aug. 1868	A new method of and apparatus for preventing draughts of air and the admission of rain, through the apertures under and around doors and windows of all descriptions.
FLETCHER, WILLIAM SANDER- [SON.	1239	15th April 1868	Machinery for combing or dressing silk, flax, china grass, cotton and other fibrous substances.
FLEURY, ANTHONY LEONARD -	1920	12th June 1868	Improvements in treating quartz and silicious substances to obtain hydrate of silica, and in applying the same to various useful purposes.
FLEURY, ANTHONY LEONARD -	1921	12th June 1868	Improvements in the means of and apparatus for treating gold and silver ores, and in utilizing the products resulting therefrom.
FLEURY, ANTHONY LEONARD -	2187	4th July 1868	Improvements in reducing aluminium from its ores or earths, and in producing alloys therefrom. (Patented by Edwin Henry Newby.)
FLEURY, ANTHONY LEONARD -	3786	12th Dec. 1868	Treatment of ores of gold and silver, and of quartz and silicious substances, in order to obtain and apply the products therefrom to various useful purposes. (Patented by Alexander Prince.)
FLINOIS, FENÉLON - - -	1887	10th June 1868	Making and manufacturing the musical instrument known as the harmonium. (Patented by Peter Fraye.)
FODEN, EDWIN - - -	1228	14th April 1868	Certain improvements in apparatus to be employed for mowing and reaping.
FOGERTY, VALENTINE - -	3165	15th Oct. 1868	Repeating breech-loading fire-arms. (Patented by William Robert Lake.)
FOLGER, JOHN B. - - -	1721	25th May 1868	Horses' harness. (Patented by William Robert Lake.)
FORBES, JOHN - - -	114	11th Jan. 1868	An improved self-securing skate. (Patented by Thomas Skevington Ellin.)

For]

## ALPHABETICAL INDEX OF PATENTERS

[For

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FORBES, JOSEPH SAMUEL -	8639	30th Nov. 1868	Improvements in the preparation of materials used in the manufacture of pottery, earthenware and china, and in apparatus for the same.
FORBES, MARSHALL - -	1777	29th May 1868	Improvements in plating spoons and other articles with a coating of metal, and in apparatus employed therein. (Patented by George Tomlinson Bousfield.)
FORD, BENJAMIN - - -	358	3rd Feb. 1868	Hot-air stoves for blast furnaces in the manufacture of iron.
FORDRED, JOHN - - -	610	24th Feb. 1868	Treatment of paraffine.
FORDRED, JOHN - - -	648	26th Feb. 1868	Purifying hydrocarbon oils.
FORDRED, JOHN - - -	2356	27th July 1868	Treating animal and vegetable oils, fats, fatty acids, wax, resins, essential oils, balsams, and the solid and liquid hydrocarbons.
FORDRED, JOHN - - -	3698	4th Dec. 1868	Improvements in the mode of treating and purifying paraffine, and in apparatus to be used therein.
FOREL, CASIMIR DE - -	2709	2nd Sept. 1868	A new system of suspended iron roads or ways, and carriages or vehicles to be used in connection therewith. (Patented by Edward Cortazzi.)
FOREST, THOMAS BURLOCK DE	621	25th Feb. 1868	Manufacture of hoop skirts. (Patented by Edward Thomas Hughes.)
FOREST, THOMAS BURLOCK DE (Forest, Thomas De).	2434	1st Aug. 1868	Bindings for skirts. (Patented by George Tomlinson Bousfield.)
FORMHALS, FERDINAND -	493	13th Feb. 1868	An improved mode of and apparatus for extracting and condensing the volatile portions of ores. (Patented by William Robert Lake.)
FORNARI, THE MARQUIS ER- [NEST DE.	3475	16th Nov. 1868	Improvements in the shape and casting of missiles and in the apparatus connected therewith. (Patented by Henri Adrien Bonneville.)
FORSTER, CARL, junr. - -	1554	13th May 1868	Apparatus for preventing the incrustation and the accumulation of sediments in steam-boilers. (Patented by Henry Bernoulli Barlow.)
FORSTER, JOHN - - -	762	5th March 1868	Machines for drilling and boring.
FORSTER, THOMAS - - -	1222	13th April 1868	Manufacture of compounds of india-rubber, gutta-percha, balata, parkesine, solid paraffin or vegetable oils, and vegetable fibre.
FORSTER, THOMAS - - -	2715	2nd Sept. 1868	Manufacture of porous or spongy substances from india-rubber, gutta-percha, balata or their compounds.
FORSTER, THOMAS - - -	3215	20th Oct. 1868	Improvements in sponging or bath gloves, part of which invention is also applicable to the joining india-rubber sponge.
FORT, EDWARD - - -	3156	15th Oct. 1868	Construction and arrangement of the furnaces of steam-boilers.
FORVILLE, EMILE VIARENGO [DE.	881	16th March 1868	An improved machine for crushing and sifting flour.
FOSBERRY, GEORGE VINCENT [V. C.	3512	19th Nov. 1868	Breech-loading fire-arms and cartridges for the same.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FOSTER, CHARLES JOSEPH -	1890	22nd May 1868	Improvements in obtaining the transverse reciprocating motions of the cutter bar in reaping, mowing and other similar agricultural machines, and improvements in wheels for agricultural machines, which last named improvements are also applicable to traction engine wheels.
FOSTER, CHARLES JOSEPH -	3544	21st Nov. 1868	Improvements in obtaining the transverse reciprocating motions of the cutter bar in reaping, mowing and other similar agricultural machines, and improvements in wheels for agricultural machines, which last named improvements are also applicable to traction engine wheels.
FOSTER, DAVID - - -	17	1st Jan. 1868	Manufacture of anvils (of all kinds) for smiths, and every description of top and bottom faces for hammers for drawing-out purposes.
FOSTER, DAVID - - -	1827	4th June 1868	Combining and casting various qualities of metal in the manufacture of anvils, top and bottom faces for hammers for drawing-out purposes, projectiles and other articles.
FOSTER, HARRY - - -	2896	19th Sept. 1868	Improvements in graining and bruising leather, and in machinery or apparatus to be employed for such purpose.
FOSTER, JOHN, the younger -	2982	29th Sept. 1868	A new (or improved) machine or apparatus for preparing or damping and marking paper used in the manufacture of spool tubes and cartridge cases.
FOSTER, WALTER KITTREDGE	3227	21st Oct. 1868	Certain new and useful improvements in carriage wheels.
FOUCAUT, ALFRED - - -	1280	20th April 1868	Apparatus for signalling or giving orders on board ships and in other places. (Patented by Louis Maria Ruis.)
FOULDS, SAMUEL - - -	3766	11th Dec. 1868	Spinning and twisting frames.
FOURNIER, JEAN BAPTISTE [NAPOLEON.	2733	4th Sept. 1868	Thermometers. (Patented by William Edward Newton.)
FOURNIER, OCTAVE VICTOR -	1499	7th May 1868	Manufacture of plates for heliographic engraving. (Patented by Arthur Charles Henderson.)
FOWLER, BARNARD - - -	3711	5th Dec. 1868	Construction of steam cultivating machinery.
FOWLER, EDWARD HENRY -	986	23rd March 1868	Frames or holders for lamp shades or glasses.
FOX, CHARLES DOUGLAS -	1399	29th April 1868	Machinery for nicking and dressing the heads of screw blanks. (Communicated by John Howard.)
FOX, CHARLES DOUGLAS -	2400	30th July 1868	Improvements in the manufacture and method of repairing railway rails and other iron of permanent way, and in the machinery to be employed therein. (Communicated by Hugh Baines.)
FOX, FRANCIS WILLIAM -	2909	22nd Sept. 1868	Locomotive engines and carriages for railways.
FOX, HOWARD BUSBY - -	3835	17th Dec. 1868	An improved self-acting rack or catch with or without hinge.
FOX, SAMSON - - - -	3964	30th Dec. 1868	Machinery or apparatus for cutting and shaping wood or other materials.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FOX, SAMUEL - - -	2908	21st Sept. 1868	Manufacture of umbrellas and sun shades or parasols.
FOX, WILLIAM - - -	3984	30th Dec. 1868	Machinery or apparatus for cutting and shaping wood or other materials.
FRAENKEL, JOSEPH - -	2710	2nd Sept. 1868	An improved process for purifying or treating wool. (Patented by Clinton Edgcombe Brooman.)
FRAME, JOHN - - -	346	31st Jan. 1868	Improvements in transmitting motive-power and in mechanism or apparatus employed therefor.
FRANCE, WILLIAM HENRY -	3276	26th Oct. 1868	Wool-combing machines.
FRANCILLON, ERNEST - -	3700	5th Dec. 1868	Dyeing fur and hair.
FRANCIS, LEWIS - - -	2108	2nd July 1868	Improved compositions applicable to printing purposes and to the manufacture of printing materials, and the production of emery cloth, artificial hones and other polishing surfaces.
FRANZ, JOB - - -	599	22nd Feb. 1868	Electrical signal or alarm apparatus. (Patented by William Robert Lake.)
FRASER, ALEXANDER JOHN -	2764	8th Sept. 1868	Locks.
FRASER, DOUGLAS - - -	2579	18th Aug. 1868	Improvements in softening, preparing and spinning flax and similar fibrous materials, and finishing yarns made thereof, and in apparatus therefor.
FRASER, WILLIAM JOHN -	10	1st Jan. 1868	Furnaces or fireplaces.
FRAYE, PETER - - -	1887	10th June 1868	Making and manufacturing the musical instrument known as the harmonium. (Communicated by Fénélon Flinois.)
FRAZER, JOSEPH - - -	2447	4th Aug. 1868	Construction of mattresses and camp beds.
FRAZER, JOSEPH - - -	3814	15th Dec. 1868	Construction of mattresses and camp beds.
FREAR, GEORGE ALEXANDER -	2759	7th Sept. 1868	Improved compositions for the production of artificial stones, tiles and pipes, and useful also as cements, paints and for stuccoes. (Patented by Charles Holland.)
FRENCH, JOSEPH PAXTON -	607	24th Feb. 1868	Printing machines.
FRETEUR, VICTOR - - -	2677	29th Aug. 1868	An improved machine for agglomerating coal or other combustible dust in any shapes, particularly into spheroidal and ellipsoidal forms, and permitting the simultaneous manufacture of balls or cakes of various sizes. (Patented by William Edward Gedge.)
FREUTEL, HENRY FREDERICK	2462	6th Aug. 1868	Manufacture of hats and caps and other coverings for the head.
FRIEDMAN, ALEXANDER -	634	25th Feb. 1868	Apparatus for raising and forcing water and for feeding steam-boilers. (Patented by George Tomlinson Bougfield.)
FRISBIE, MYRON JOHN - -	27	3rd Jan. 1868	Mechanism or apparatus for feeding fuel into furnaces, fire-boxes and fire-grates.
FRITCH, HENRI FRITZ - -	1101	1st April 1868	An improved appliance for protecting trousers from mud. (Patented by William Arthur Warner Sleigh and Annie Pye.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FROEHLICH, BELLINA - -	1644	20th May 1868	Improvements in means or apparatus for opening sardine and other sheet metal cases or receptacles, which improvements are also applicable to cutting sheet metals and other materials. (Patented by Robert Froehlich.)
FROEHLICH, ROBERT - -	1644	20th May 1868	Improvements in means or apparatus for opening sardine and other sheet metal cases or receptacles, which improvements are also applicable to cutting sheet metals and other materials. (Communicated by Bellina Froehlich.)
FROUD, PHILIP - - -	1064	28th March 1868	Revolving iron shutters.
FRUWIRTH, DANIEL - -	2496	10th Aug. 1868	An improved process for producing raised printing surfaces.
FRY, JAMES - - - -	1643	20th May 1868	Construction of folding perambulators in order to contract them into a smaller compass.
FRY, JAMES - - - -	2936	24th Sept. 1868	Manufacture of wheels for carriages, carts and all other wheeled vehicles.
FRYER, ALFRED - - -	2134	4th July 1868	Improvements in the concentration and treatment of saccharine and saline solutions, and in apparatus employed therein.
FRYER, ALFRED - - -	2144	6th July 1868	Improvements in the mode of treating for evaporating and concentrating purposes, cane juice, beetroot juice, and other saccharine and other solutions and liquids, and in the construction of apparatus for the concentration of saccharine and other solutions, and for the evaporation of liquids.
FRYER, JOHN - - - -	1677	21st May 1868	Machinery or apparatus for tilling land.
FRYER, ROBERT - - -	1677	21st May 1868	Machinery or apparatus for tilling land.
FUGL, HENRY THOMAS - -	1301	21st April 1868	Curtain poles or laths.
FUGL, JOHN - - - -	1301	21st April 1868	Curtain poles or laths.
FULLER, HENRY WILLIAM -	3659	1st Dec. 1868	Tuck markers for sewing-machines.
FULLER, THOMAS WILLIAM -	992	24th March 1868	Carriages.
FUNKE, HERMAN - - -	1236	15th April 1868	Breech-loading fire-arms. (Patented by Alfred Vincent Newton.)
FUNNELL, EDWARD - -	2248	17th July 1868	Signalling on railways.
FUSNOT, CHARLES - - -	1686	22nd May 1868	Central-fire cartridges.
FUSSELL, SIMON PETER BOOTH	469	11th Feb. 1868	An improved process for ornamenting glass.
FYFE, DAVID ADAM - -	167	17th Jan. 1868	An improved mode of manufacturing paper pulp from wood and other fibrous materials.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
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GADD, WILLIAM - - -	1572	14th May 1868	Looms for weaving.
GADD, WILLIAM - - -	2989	30th Sept. 1868	Looms for weaving.
GADSBY, JOSEPH - - -	3126	12th Oct. 1868	Improvements in the manufacture of lace made on bobbin net or twist lace machines, and in the machinery or apparatus employed therein.
GALAND, CHARLES FRANÇOIS	8089	5th Oct. 1868	Repeating fire-arms.
GALE, JAMES MORRIS - -	402	6th Feb. 1868	Improvements in condensing steam and in apparatus therefor.
GALL, WILLIAM - - -	720	3rd March 1868	Machinery or apparatus for winding yarns or threads.
GALLET, VICTOR - - -	1187	8th April 1868	Manufacture of steel.
GALLET, VICTOR - - -	2963	26th Sept. 1868	Manufacture of cast steel.
GALLOWAY, CHARLES JOHN -	591	22nd Feb. 1868	Wrought-iron and steel piles, pillars and columns.
GALLOWAY, CHARLES JOHN -	2221	14th July 1868	Operating piston valves of steam-engines.
GALLOWAY, CHARLES JOHN -	2253	17th July 1868	Improvements in boilers for generating steam, and in apparatus connected therewith for heating the feed water.
GANCE, DOMINIQUE - - -	1111	1st April 1868	Sewing-machines
GANN, CHARLES - - -	1397	28th April 1868	Reefing fore-and-aft sails.
GANTERT, LONGIN - - -	3689	4th Dec. 1868	Improvements in dyeing yarns in hanks or skeins, and in the mechanism or apparatus employed therefor. (Patented by Simon Hirsch.)
GARCIN, AMELIE - - -	249	23rd Jan. 1868	Sewing-machines.
GARCIN, AMELIE - - -	1658	20th May 1868	Sewing-machines. (Patented by Alfred Vincent Newton.)
GARCIN, CAROLINE - - -	249	23rd Jan. 1868	Sewing-machines.
GARCIN, CAROLINE - - -	1658	20th May 1868	Sewing-machines. (Patented by Alfred Vincent Newton.)
GARCIN, VINCENT - - -	2188	10th July 1868	Filling the spaces between the beams or joists of iron floors and ceilings. (Patented by George Davies.)
GARDEN, ROBERT SPRING -	3807	15th Dec. 1868	An improved portable cartridge pouch or box.
GARDIVER, BENJAMIN - -	2804	11th Sept. 1868	Improvements in the manufacture of umbrellas and parasols, and in the production of fabrics suitable for use in this manufacture and for other purposes.
GARDNER, CHARLES HENRY -	1154	6th April 1868	Lithographic, zincographic and typographic printing machines.
GARDNER, CHARLES HENRY -	2673	28th Aug. 1868	Lithographic and zincographic cylinder printing machines.
GARDNER, JAMES - - -	45	6th Jan. 1868	Projecting liquids in the form of spray, by a draft or current of air forced through part of the liquid, and an instrument or apparatus for such purpose.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GARDNER, JOHN BATEMAN -	1773	29th May 1868	An improved machine for sifting pulverized tobacco in the manufacture of snuff.
GARDNER, SANKEY - -	2480	8th Aug. 1868	A new or improved annealing pot and stand.
GARDNER, WILLIAM - -	2478	7th Aug. 1868	Fire-arms. (Patented by William Edward Newton.)
GARNETT, THOMAS - -	3048	6th Oct. 1868	Hydraulic rams.
GARRARD, JOHN GOODJER -	2047	25th June 1868	Rick cloths.
GARRATT, ALFRED CHARLES -	2392	30th July 1868	An improved pile or portable battery for generating electricity. (Patented by George Davies.)
GARRATT, ALFRED CHARLES -	3359	5th Nov. 1868	An improved electrophysiological battery for application to the human body. (Patented by Bristow Hunt.)
GARRETT, HENRY WILLIAM -	2436	3rd Aug. 1868	Certain improvements in breech-loading fire-arms and ordnance.
GARSDIE, HENRY - - -	2200	11th July 1868	File cutting machines.
GARSIDES, ROBERT - -	2660	27th Aug. 1868	Improvements in roofing tiles and in the method of keying or fastening together some of such tiles when being formed into a roof, and in the apparatus used in the manufacture of such tiles.
GARTH, JAMES, M <sup>c</sup> - - -	3520	19th Nov. 1868	Skirts.
GATHERCOLE, THOMAS JAMES -	1589	15th May 1868	Construction of frames and furniture for umbrellas, sunshades, parasols and other such like articles.
GATTMAN, ISAAC M. - -	1184	8th April 1868	Manufacture of salts of soda. (Patented by William Edward Newton.)
GAUNT, JOHN WILLIAM - -	652	26th Feb. 1868	Spinning and twisting machinery.
GAUNT, REUBEN - - -	652	26th Feb. 1868	Spinning and twisting machinery.
GAUTHRIN, PIERRE ACHILLE -	2468	7th Aug. 1868	Breech-loading fire-arms. (Patented by Thomas Wesley Stapleton.)
GAVIOLI, CLAUDE - - -	2184	9th July 1868	A new musical instrument, parts of which are applicable to other musical instruments. (Patented by John Henry Johnson.)
GAY, LOUIS - - - -	2582	18th Aug. 1868	Machinery for washing wool and other fibrous materials.
GAYET, ANTOINE, the younger -	3398	9th Nov. 1868	An improved woven fabric. (Patented by Bristow Hunt.)
GEARY, ALFRED - - -	854	12th March 1868	Cinder sifters.
GEARY, ALFRED - - -	1398	29th April 1868	A new or improved method of or means for preventing the moustache from dipping into soup, when eating it from a spoon.
GEARY, EDWIN - - -	854	12th March 1868	Cinder sifters.
GEARY, JOHN HENRY - -	158	17th Jan. 1868	Machinery for the manufacture of nails and tacks. (Patented by Richard Heathfield.)
GEEMEN, JOSEPH - - -	3976	31st Dec. 1868	A new and improved apparatus for drying and growing malt and all other grains, fruits or vegetables. (Patented by Henri Adrien Bonneville.)
GEDGE, JOHN - - - -	3975	30th Dec. 1868	Manufacture of gas apparatus or fittings.
GEDGE, WILLIAM EDWARD -	121	14th Jan. 1868	Construction of breech-loading fire-arms. (Communicated by Benoit-Dulin.)



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GEDGE, WILLIAM EDWARD -	129	15th Jan. 1868	The substitution of thin flexible and moveable blades or cutters of sheet steel, in lieu of rigid blades or cutters, in planing machines and machines cutting and shaping wood by means of rotating tools, and an arrangement which permits their use on tool-holders or cutter-stocks with curved, helicoidal, conical and other surfaces. (Communicated by Frédéric Godeau and Jules Trottier.)
GEDGE, WILLIAM EDWARD -	501	14th Feb. 1868	A process having for object the separation of animal from vegetable substances in textile fabrics, rags or any other material containing them. (Communicated by Philibert Antoine Hippolyte Schlosser.)
GEDGE, WILLIAM EDWARD -	645	26th Feb. 1868	A improved machine intended to divide, break or crush all substances capable of being triturated, more especially bones and horny substances of every kind, for converting them into manure. (Communicated by Eugène Anduze.)
GEDGE, WILLIAM EDWARD -	714	3rd March 1868	A mineral paper-hanging intended to preserve apartments from dampness. (Communicated by Victorin Tybur.)
GEDGE, WILLIAM EDWARD -	761	5th March 1868	Steam-engines. (Communicated by Léon Cambier.)
GEDGE, WILLIAM EDWARD -	901	17th March 1868	Improved fuel by the use of which the kindling of fires will be greatly facilitated. (Communicated by Remy Nicolas Legendre.)
GEDGE, WILLIAM EDWARD -	990	24th March 1868	An improved smoke consuming fire-place or furnace. (Communicated by Ernest Henry.)
GEDGE, WILLIAM EDWARD -	1069	28th March 1868	An improved apparatus for moistening postage and other stamps to prepare them for application. (Communicated by Victor Mollard.)
GEDGE, WILLIAM EDWARD -	1258	17th April 1868	A new chemical product applicable to the electrical pile and to other uses. (Communicated by Pierre Rondel.)
GEDGE, WILLIAM EDWARD -	1259	17th April 1868	A novel apparatus for putting boots and shoes on the feet. (Communicated by Louis Leclerc.)
GEDGE, WILLIAM EDWARD -	1449	4th May 1868	An improved process of applying a coating of silver upon any animal, vegetable or mineral substance. (Communicated by Artus Claude Loddé, junr.)
GEDGE, WILLIAM EDWARD -	1505	7th May 1868	A improved portable apparatus for administering resinous sudations. (Communicated by Messieurs Taillotte and Henry Caudron.)
GEDGE, WILLIAM EDWARD -	1506	7th May 1868	An improvement in throstle frames for spinning flax, tow, hemp, jute, silk, wool or cotton. (Communicated by Parent-Monfort, Page-Drino and Cimetière-Norbert.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[Ged]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GEDGE, WILLIAM EDWARD -	1617	16th May 1868	An improved process for extracting or removing wool and hair from hides or skins. (Communicated by Paul Clérin.)
GEDGE, WILLIAM EDWARD -	1829	4th June 1868	Construction of ploughs. (Communicated by Jean Pierre Lattes and Raymond François Fauré.)
GEDGE, WILLIAM EDWARD -	2010	22nd June 1868	Improved means of indicating whether the doors of railway or other carriages are securely fastened or simply closed. (Communicated by Victor Décombes.)
GEDGE, WILLIAM EDWARD -	2332	24th July 1868	Method of and apparatus for feeding steam-boilers. (Communicated by Emile Adolphe Tyrode and Pierre Théophile Cousty.)
GEDGE, WILLIAM EDWARD -	2677	29th Aug. 1868	An improved machine for agglomerating coal or other combustible dust in any shapes, particularly into spheroidal and ellipsoidal forms, and permitting the simultaneous manufacture of balls or cakes of various sizes. (Communicated by James Salamon, Victor Fréteur and Casimir Troquier.)
GEDGE, WILLIAM EDWARD -	2693	31st Aug. 1868	An improved apparatus for warding off leaves and other matters likely to clog the working of turbines. (Communicated by Jean François Vaugeois.)
GEDGE, WILLIAM EDWARD -	2977	29th Sept. 1868	An improved swimming apparatus which may also serve as a safety belt. (Communicated by Dumont-Husson.)
GEDGE, WILLIAM EDWARD -	3154	15th Oct. 1868	Manufacture or preparation of artificial fuel. (Communicated by Charles de Lin and Auguste Combe Dalma.)
GEDGE, WILLIAM EDWARD -	3262	24th Oct. 1868	An improved glove fastening. (Communicated by Joseph Mathieu Cheuses and Edouard Nicolas Popard.)
GEDGE, WILLIAM EDWARD -	3273	26th Oct. 1868	An improved gas-burner. (Communicated by Joseph Rousselot.)
GEDGE, WILLIAM EDWARD -	3281	27th Oct. 1868	Manufacture and application of salt-stones or lumps of salt for consumption by cattle, sheep and other animals. (Communicated by Charles Louis Weisgerber and Eusèbe Schilt.)
GEDGE, WILLIAM EDWARD -	3589	25th Nov. 1868	A novel system of tug or tow-boat. (Communicated by Antoine Faurie.)
GEDGE, WILLIAM EDWARD -	3590	25th Nov. 1868	Sewing or embroidering machines. (Communicated by Antoine Bounas.)
GEDGE, WILLIAM EDWARD -	3629	28th Nov. 1868	An improved instrument intended to facilitate the execution of perspective drawings. (Communicated by Paul Gelibert.)
GEDGE, WILLIAM EDWARD -	3630	28th Nov. 1868	An improved plate-warming apparatus. (Communicated by Louis Hippolyte Lardit.)
GEDGE, WILLIAM EDWARD -	3679	3rd Dec. 1868	Construction of ploughs. (Communicated by Jean Pierre Lattes and Raymond François Fauré.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GEDGE, WILLIAM EDWARD -	3893	21st Dec. 1868	A novel bituminous composition termed "resinous bitumen." (Communicated by Felicie Labat and Joseph Meric.)
GEDGE, WILLIAM EDWARD -	3895	21st Dec. 1868	An improved construction of cock or tap. (Communicated by Claude Renard, Michel Perret and Jules César Voituret.)
GEDGE, WILLIAM EDWARD -	3916	22nd Dec. 1868	Construction of floating docks intended for raising and careening vessels, and also for their construction. (Communicated by Jean Louis Chemallé, senior.)
GEDGE, WILLIAM EDWARD -	3925	23rd Dec. 1868	An improved electric bell sounding and telegraphing apparatus for domestic use. (Communicated by Léon Victor Jacquemard.)
GEDGE, WILLIAM EDWARD -	3978	31st Dec. 1868	A novel kind of sweetmeat. (Communicated by François Aroud.)
GEE, JOSEPH SMITH -	896	16th March 1868	Ornamenting slate and such like materials to be afterwards enamelled.
GEER, HENRY BELCHER -	3551	23rd Nov. 1868	Presses for compressing and otherwise operating upon metal, hay, bricks, cotton and various other materials. (Patented by Edward Thomas Hughes.)
GEER, THOMAS - - -	2847	16th Sept. 1868	Improvements in the method of and apparatus for cutting the edges of books, which apparatus is also applicable for cutting the edges of note paper and for other similar uses.
GEIGER, JOHN LEWIS - -	940	19th March 1868	Improvements in doubling, twisting and throwing silk and in apparatus therefor. (Communicated by Eugène Duseigneur-Kléber.)
GEISSEL, HENRY - - -	1453	4th May 1868	Lockets. (Patented by Jonas Wertheim and Louis Hirschhorn.)
GEISLER, JOHN L. - -	1808	2nd June 1868	Lever escapements for watches or time-keepers. (Patented by William Edward Newton.)
GELIBERT, PAUL - - -	3629	28th Nov. 1868	An improved instrument intended to facilitate the execution of perspective drawings. (Patented by William Edward Gedge.)
GÉNET, JEAN BAPTISTE -	1431	1st May 1868	Machinery or apparatus for burling and shearing textile fabrics. (Patented by John Henry Johnson.)
GENSOUL, HENRI - - -	3932	24th Dec. 1868	Preparation and apparatus for transmission of electric telegraphic despatches. (Patented by John Henry Johnson.)
GEOGHEGAN, CHARLES -	2426	1st Aug. 1868	Improvements in self-acting regulators and in the cocks or taps to the same, for supplying fluids at high pressure, and preventing the bursting of cocks, pipes or taps under ordinary circumstances or from the effects of frost.
GEORGE, BENJAMIN GEORGE -	2333	24th July 1868	Improved machinery for bronzing printed work.
GEORGE, CHRISTOPHER - -	2624	24th Aug. 1868	An improved artificial horizon used for taking altitudes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GEORGE, RICHARD - - -	485	13th Feb. 1868	Gas stoves for heating and ventilating.
GERACI, DOMENICO - - -	1373	27th April 1868	The manufacture of an armour or armour plating material applicable to other purposes.
GERARD, JOHN - - -	1856	6th June 1868	Improved mechanical arrangements for facilitating escape from fire, for lifting and lowering weights and for other similar purposes.
GERHARD, FREDERICK WILLIAM	1464	5th May 1868	Motive-power engines actuated by steam or other vapour.
GERIN, LOUIS AUGUSTE - -	255	24th Jan. 1868	Means and apparatus for lubricating parts of machinery exposed to the action of steam. (Patented by Alexander Melville Clark.)
GHE, JAMES MC - - -	1284	20th April 1868	Apparatus for spinning or twisting.
GIACOMETTI, DOMINIQUE [MARIE.	2027	24th June 1868	Apparatus for economising motive-power. (Partly communicated by Francois Montecucco.)
GIBB, THOMAS - - -	2293	22nd July 1868	Treatment of metallic ores and compounds.
GIBBS, WILLIAM ALFRED -	289	28th Jan. 1868	Mechanism or apparatus for drying wheat in the sheaf, and other vegetable matters.
GIBSON, HENRY - - -	2984	26th Sept. 1868	Improvements in the manufacture of tobacco and in the machinery or apparatus employed therefor.
GIBSON, LEMUEL - - -	2012	22nd June 1868	Coating or covering electric conductors.
GIBSON, ROBERT EMERSON -	3405	10th Nov. 1868	Improvements in utilising a certain waste material obtained in treating cotton seed, and in machinery employed therein.
GIBSON, THOMAS - - -	3989	31st Dec. 1868	Buffers to be used on railways.
GIBSON, WILLIAM WALKER -	1491	6th May 1868	Improvements in separating tares and other impurities from grain and other seeds, and in the apparatus or means connected therewith. (Patented by James Graham Walker and Charles Stein.)
GIDDINGS, JOHN - - -	696	29th Feb. 1868	A new or improved fire-escape.
GIELGUD, HENRY - - -	3236	23rd Oct. 1868	Breech-loading fire-arms.
GIHAUT, MARIE ELISABETH -	339	31st Jan. 1868	A new and improved advertising vehicle. (Patented by Henri Adrien Bonneville.)
GILBEE, WILLIAM ARMAND -	2011	22nd June 1868	Machinery or apparatus for the manufacture of cards for carding. (Communicated by Charles Justin Deblon.)
GILBERT, FRANCIS STEPHEN -	3045	6th Oct. 1868	Manufacture of self-adjusting spanners.
GILBERT, WILLIAM - - -	2313	23rd July 1868	Locketts.
GILES, WILLIAM OGDEN -	3352	4th Nov. 1868	Preparing and preserving vegetable and animal substances. (Patented by Maurice Sautter.)
GILL, GEORGE W. MC - - -	442	8th Feb. 1868	Split spikes. (Patented by William Robert Lake.)
GILL, JOSEPH - - -	2264	18th July 1868	Engines for obtaining motive-power.
GILLMAN, JAMES - - -	3957	29th Dec. 1868	A contracting lever scale.
GILLOTT, JOHN - - -	2643	25th Aug. 1868	Machinery or apparatus for cutting or getting coal, stone and other minerals.
GILPIN, WILLIAM - - -	3729	8th Dec. 1868	Spinning looms. (Patented by Henri Adrien Bonneville.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GIRARDIN, PAUL HYACINTHE	1610	16th May 1868	Lamps for burning mineral oils and essences. (Patented by Alexander Melville Clark.)
GIRAUD, ANDRÉ - - -	3256	24th Oct. 1868	Improvements in separating silver from argentiferous lead in purifying lead, and in apparatus for the same.
GIRDLESTONE, HENRY JOHN -	2986	29th Sept. 1868	Treating ships and vessels to correct and prevent compass deviations.
GIRDLESTONE, JOHN WARD -	2986	29th Sept. 1868	Treating ships and vessels to correct and prevent compass deviations.
GIRDWOOD, ROBERT - -	75	8th Jan. 1868	Bags for transmitting samples or materials by post or otherwise.
GIRDWOOD, ROBERT - -	3704	5th Dec. 1868	Apparatus for crushing or reducing ores and similar materials, and for compounding different ingredients, such as the oleaginous and resinous matters used in making sheep smears.
GISBORNE, FREDERIC NEWTON	1768	29th May 1868	Apparatus for signalling on board ship and in other places.
GISBORNE, FREDERIC NEWTON	3907	22nd Dec. 1868	Improvements in means or apparatus for effecting the explosion of torpedoes and other explosive charges, part of which improvements is applicable to electric telegraphy.
GISBORNE, FREDERIC NEWTON	3909	22nd Dec. 1868	Improvements in means or apparatus for generating gas used for heating and lighting, and in means for heating by gas.
GISBORNE, FREDERIC NEWTON	3958	29th Dec. 1868	Means or apparatus for giving motion to sewing and other machines.
GISBORNE, JOHN SACHEVERELL	608	24th Feb. 1868	An improved mode of and means or apparatus for indicating a ship's course and preventing collisions at sea.
GIVRY, THEODORE - - -	8	1st Jan. 1868	Needle cases. (Patented by Henry Milward.)
GJEES, JOHN - - -	688	28th Feb. 1868	Improvements in the manufacture of cast steel and homogeneous iron, and in furnaces applicable thereto.
GLASHAN, ALEXANDER M <sup>c</sup> -	1009	25th March 1868	Improved machinery or apparatus for mashing substances employed in the making of fermented liquors.
GLASHAN, JAMES MC - -	3523	20th Nov. 1868	Apparatus for untwisting ropes.
GLENN, JAMES KNOX - -	2342	25th July 1868	An improved construction of portable railway. (Patented by Alfred Vincent Newton.)
GLEW, JOHN HENRY - -	93	10th Jan. 1868	Improvements in the manufacture of boots, shoes and gaiters.
GLEW, JOHN HENRY - -	2926	23rd Sept. 1868	Button holes for boots, shoes, gaiters and other articles.
GLOVER, CHARLES - - -	2004	20th June 1868	Machinery for cutting or worming screws.
GLOVER, EDWARD W. - -	307	29th Jan. 1868	Steam fireproof safes. (Patented by William Snell.)
GLOVER, FREDERICK ROBERT [AUGUSTUS.	2191	10th July 1868	Improved means of and apparatus for fishing ships' anchors.
GLOVER, GEORGE - - -	1237	15th April 1868	Certain improvements in the arrangement and construction of submerged or subaqueous lamps, and in the fluid used in and adapted to such lamps. (Communicated by M. Michel Van Der Weyde.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GLOVER, GEORGE - - -	2090	30th June 1868	Means or apparatus for the combustion of naphtha, benzole and similar liquids. (Communicated by Laslo Chandor.)
GLOVER, HOWARD - - -	1448	4th May 1868	Means for retaining corks or other stoppers in bottles.
GOBIN, FRANÇOIS JEAN GUIL- [LAUME.	2140	4th July 1868	An improved fastening for boots, shoes and other articles. (Patented by Alexander Melville Clark.)
GODEAU, FRÉDÉRIC - - -	129	15th Jan. 1868	The substitution of thin flexible and moveable blades or cutters of sheet steel, in lieu of rigid blades or cutters, in planing machines and machines cutting and shaping wood by means of rotating tools, and an arrangement which permits their use on tool-holders or cutter-stocks with curved, helicoidal, conical and other surfaces. (Patented by William Edward Gedge.)
GODFREY, BENJAMIN DAVEN- [PORT.	2800	11th Sept. 1868	Improvements in the mode of and means for securing soles upon boots and shoes, part of which improvements are applicable to other purposes.
GOFF, THEODORE A. - - -	1270	18th April 1868	Machines for turning off cross head wrist pins, crank pins and similar work. (Patented by Wilhelm Lund.)
GOGUEL, EUGENE ALEXANDRE [FREDERIC.	1536	11th May 1868	Furnaces or heating apparatus. (Patented by Clinton Edgcumbe Brooman.)
GOGUEL, EUGENE FREDERIC -	2819	14th Sept. 1868	Manufacture of metallic plates or blocks particularly applicable as armour for ships, forts and other like structures. (Patented by Clinton Edgcumbe Brooman.)
GOLAY, SAMUEL - - -	958	21st March 1868	Improvements in apparatus to be used in the manufacture of mill-stones and in the working of hard stones in general. (Patented by George Davies.)
GOLAY, SAMUEL - - -	1104	1st April 1868	Construction of centrifugal ventilators or fans. (Patented by George Davies.)
GOLD, RICHARD ALFRED -	3454	13th Nov. 1868	Two-wheeled carriages or cabs.
GOLDEN, CHARLES - - -	1612	16th May 1868	Breech-loading guns.
GOLDSTEIN, LOUIS - - -	1625	18th May 1868	Umbrella and parasol cloths.
GOLDSTEIN, SIGMAND - - -	69	8th Jan. 1868	Improvements in that portion of gentleman's attire called the vest or waistcoat.
GOODALL, EDWARD BRIGHAM	3924	23rd Dec. 1868	Construction of plates for holding artificial teeth. (Patented by John Henry Johnson.)
GOODES, ALFRED GEORGE -	3753	9th Dec. 1868	Manufacture of cigars and cheroots.
GOODMAN, ALFRED - - -	2627	24th Aug. 1868	Improvements in steam-boiler and other furnaces, and in apparatus connected therewith.
GOODWIN, S. A. - - -	3297	28th Oct. 1868	Condensers of steam-engines. (Patented by Clinton Edgcumbe Brooman.)
GOODWIN, WILLIAM FARR -	31	4th Jan. 1868	An improved mechanical arrangement for converting power into speed and speed into power, and for multiplying and transmitting motion for all purposes where such movement can be applied and used. (Patented by William Edward Newton.)

Name of Patentec.	Number of Patent.	Date.	Subject-matter of Patent.
GOODWIN, WILLIAM FARR -	571	20th Feb. 1868	Improvements in mechanical movements adapted for use in clocks and watches, and wherever else it is desired to multiply motion or to convert speed into power. (Patented by William Edward Newton.)
GOODWIN, WILLIAM FARR -	586	21st Feb. 1868	Reaping and mowing machines. (Patented by Alfred Vincent Newton.)
GOODWIN, WILLIAM FARR -	2130	3rd July 1868	Automaton toys. (Patented by William Edward Newton.)
GOODYAR, GEORGE ARCHIBALD [DINELY.]	4	1st Jan. 1868	Method of and machinery for propelling boats or vessels.
GOPSILL, GEORGE - - -	190	18th Jan. 1868	Improvements in sleeve links, which improvements may also be applied to other dress fastenings, and fastenings for articles of jewellery and for other like purposes.
GORDON, CHARLES - - -	3946	26th Dec. 1868	Construction of breech-loading fire-arms.
GORMAN, WILLIAM - - -	1256	17th April 1868	Improvements in the manufacture of iron and steel and in apparatus therefor.
GORNALL, PAUL - - -	3972	30th Dec. 1868	"Long collars" of roving and slubbing frames used in the manufacture of cotton or other fibrous material.
GORNALL, RICHARD - - -	3972	30th Dec. 1868	"Long collars" of roving and slubbing frames used in the manufacture of cotton or other fibrous material.
GORSE, WILLIAM - - -	1293	21st April 1868	Preparation of strips of iron and steel for the manufacture of flat pointed cut nails.
GOSSELIN, ROBERT FRANÇOIS	1791	30th May 1868	Manufacture of central fire cartridges. (Patented by Clinton Edgcumbe Brooman.)
GOUCHON, LOUIS - - -	2078	27th June 1868	An improved mode of and apparatus for dyeing textile fabrics and yarns. (Patented by William Robert Lake.)
GOUGH, JOHN - - -	1409	30th April 1868	Improved gearing for actuating the knife in paper-cutting machines.
GOULD, CHARLES HENRY -	765	5th March 1868	Improvements in single or combined rivets for rivetting or securing the soles of boots and shoes or other like purposes, and in the machinery or mechanical combination for manufacturing or producing them, likewise in the means for grooving or channeling boot and shoe soles for receiving such improved rivets, and also in the tools or means used for applying the same.
GOULDING, JOHN - - -	243	23rd Jan. 1868	Looms for weaving.
GOULDING, JOHN - - -	3144	14th Oct. 1868	Machinery for spinning wool and other fibrous materials. (Patented by William Robert Lake.)
GOULDING, JOHN - - -	3979	31st Dec. 1868	Spinning machines. (Patented by William Robert Lake.)
GOULLIQUOD, ALPHONSE -	2183	9th July 1868	Looms for weaving. (Patented by Alexander Melville Clark.)
GROUNDY, JOHN WESLEY -	1417	30th April 1868	Means of carrying railway and other tickets, cards and labels, ready for exhibition or delivery.
GOUNE, THOMAS - - -	231	22nd Jan. 1868	An improved canteen.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GOURDIN, EUGÈNE - - -	40	6th Jan. 1868	Modes or methods of combining a lamp or lighting appliance with a cane or walking stick.
GOURLAY, HENRY - - -	1294	21st April 1868	Marine steam-engines.
GOUX, PIERRE NICOLAS - -	566	20th Feb. 1868	Improvements in collecting and in disinfecting human excreta and converting the same into manure, also in the apparatus or means employed therein.
GRASSE, CHARLES - - -	3850	18th Dec. 1868	Preparing coloring matters.
GRAFTON, SIDNEY - - -	2724	4th Sept. 1868	Machinery or apparatus for cutting or slicing cucumbers and other substances.
GRAHAM, GEORGE THOMSON -	341	31st Jan. 1868	Apparatus for marking or cutting woven fabrics into lengths such as are required for making sacks.
GRAHAM, PETER - - -	383	4th Feb. 1868	Corks or stoppers for closing bottles and jars.
GRANDIDIER, EDMOND - -	2562	17th Aug. 1868	Improvements in the mode of decomposing the sulphurets of iron contained in ores, coal, coke and other mineral products, and in apparatus therefor. (Patented by Charles Denton Abel.)
GRANGE - - - -	2126	3rd July 1868	Machinery or apparatus for the manufacture of paper pulp. (Patented by John Henry Johnson.)
GRANGE, GEORGE - - -	3964	30th Dec. 1868	Machinery or apparatus for cutting and shaping wood or other materials.
GRANT, CHARLES JAMES IR- [WIN (Baron de Longueuil).	1631	19th May 1868	Construction of pipes for smoking. (Patented by Edward Primrose Howard Vaughan.)
GRANT, GEORGE PETRIE -	3110	10th Oct. 1868	Bung bushes for casks and similar vessels, and apparatus for fixing same.
GRANT, JOHN - - -	2533	13th Aug. 1868	Improvements in machinery for turning over the leaves of music books or pieces of music, applicable to music stands, piano-fortes, organs and some other kinds of musical instruments.
GRANT, MAURICE - - -	66	8th Jan. 1868	Improved playing cards for the use of short-sighted and aged persons as well as for persons of good vision.
GRANTHAM, JOHN - - -	1629	18th May 1868	Improvements in the construction of iron and steel built ships and in rudders.
GRANVILLE, JAMES - - -	54	7th Jan. 1868	Improvements applicable to lowering boats from ship's sides, in a seaway.
GRAS, LOUIS NAPOLEON LE -	210	21st Jan. 1868	Churns.
GRAVELEY, GEORGE - - -	1098	1st April 1868	Means or apparatus for producing the more complete combustion of gas, paraffin and other liquid hydrocarbons.
GRAVELEY, GEORGE - - -	3044	6th Oct. 1868	Improvements in steam pumps and other engines actuated by steam or other motive fluid, and in combining sea water distilling apparatus with steam pumping and steam cooking apparatus.
GRAY, EDWARD - - -	994	24th March 1868	Manufacture of metal bars intended to be made into horse-shoes and other articles.
GRAY, EDWARD - - -	995	24th March 1868	An improved mode or method of strengthening or increasing the durability of rails, points and crossings for railways.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GRAY, ELISHA - - -	3	1st Jan. 1868	Electric telegraph apparatus. (Patented by William Robert Lake.)
GRAY, JAMES - - -	1248	16th April 1868	Improvements in furnaces for burning oil.
GRAY, JAMES - - -	1395	29th April 1868	Coatings or coverings for preventing the fouling to which ships and other structures are liable in sea water.
GRAY, JAMES - - -	1922	12th June 1868	Improvements in treating ores and in refining crude metals, in order to obtain steel, copper, tin and lead, and in apparatus therefor.
GRAY, JOHN McFARLANE -	3074	8th Oct. 1868	Improved modes of and machinery and accessory apparatus for working war turrets and heavy ordnance.
GRAY, MATTHEW - - -	1750	27th May 1868	Manufacture of insulated electric conductors.
GRAY, MATTHEW - - -	2012	22nd June 1868	Coating or covering electric conductors.
GRAY, MATTHEW - - -	2505	11th Aug. 1868	Mode of and apparatus used in manufacturing telegraphic insulated wires and cables.
GRAY, THOMAS - - -	2556	15th Aug. 1868	Manufacture of size. (Patented by Alexander Melville Clark.)
GRAY, THOMAS - - -	3160	15th Oct. 1868	Safety lamps.
GRAY, THOMAS WOOD - -	233	22nd Jan. 1868	Lightning conductors.
GRAY, THOMAS WOOD - -	2271	20th July 1868	Lightning conductors.
GRAY, WILLIAM - - -	3760	10th Dec. 1868	Improvements in the manufacture of spanners and wrenches in cast steel, for engineering and all other purposes, and in the machinery and apparatus employed in such manufacture.
GRAY, WILLIAM BENJAMIN -	35	4th Jan. 1868	Spinning and twisting machines.
GREEN, CHARLES EDMOND -	930	19th March 1868	Manufacture of cartridges for breech-loading fire-arms.
GREEN, FITZOWEN - - -	2265	21st July 1868	Lamps for burning benzine and other volatile oils and spirits, also applicable for burning non-volatile oils.
GREEN, JAMES BRODBELT -	3459	14th Nov. 1868	Size used in preparing yarn or warps to be woven.
GREEN, JOHN - - -	930	19th March 1868	Manufacture of cartridges for breech-loading fire-arms.
GREEN, JOHN - - -	3521	19th Nov. 1868	Improvements in the manufacture of rope, cord, twine, yarn and thread, and in the machinery therefor.
GREEN, OLE CHRISTIAN -	401	6th Feb. 1868	The preparation of "Phosphor free" matches made either with or without paraffin, stearine or wax, without the use of phosphor, and without requiring any prepared surface in order to obtain an instant light. (Patented by Adolph Emil Borgen.)
GREEN, RICHARD ANGELL -	1498	7th May 1868	Bearings, shafts or pivots applicable to machinery, apparatus, instruments and other useful purposes.
GREEN, RICHARD ANGELL -	3185	17th Oct. 1868	Improvements in the preparation or treatment of the folded paper sheets used for printed works, and in apparatus for effecting such preparation or treatment.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GREEN, RICHARD ANGELL -	3641	30th Nov. 1868	A new or improved method of ornamenting articles of plate, jewellery, watch-cases, studs, buttons and other ornamental or useful objects.
GREEN, ROBERT - - -	3490	17th Nov. 1868	An improved method or means of covering telegraph wires employed under water.
GREEN, ROBERT ELLIS - -	659	27th Feb. 1868	Preparation of cotton yarns or fabrics intended to be dyed with madder or a preparation of madder.
GREEN, THOMAS GOODWIN -	2277	20th July 1868	Preparation or manufacture of a composition intended to be used in the manufacture of earthenware, porcelain or vitreous articles.
GREEN, WILLIAM CHARLES -	2716	3rd Sept. 1868	Breech-loading fire-arms.
GREEN, WILLIAM FREDERICK [MONDAY.	2359	28th July 1868	Improvements in the loading of muzzle-loading big guns, and the apparatus connected therewith.
GREENE, DAVID M. - - -	405	6th Feb. 1868	Steam gauges. (Patented by William Edward Newton.)
GREENER, JOHN HENRY -	2707	2nd Sept. 1868	Construction of insulators for telegraph wires.
GREENER, WILLIAM WELLING- [TON.	800	7th March 1868	Central fire breech-loading guns and pistols.
GREENHALGH, JOHN - - -	2338	25th July 1868	Machinery or apparatus for opening and cleaning cotton and other fibrous materials.
GREENHOW, ROBERT GAW- [THORPE.	968	21st March 1868	Breech-loading fire-arms and cartridges.
GREENSTREET, FRANCIS HAST- [INGS.	1143	4th April 1868	Targets, arrows, darts and other projectiles, more especially adapted for indoor use and amusement.
GREENWOOD, FREDERICK [FRANCIS.	2649	16th Sept. 1868	Fastenings in the nature of buckles.
GREENWOOD, JOSIAH - - -	2686	31st Aug. 1868	Certain improvements in looms for weaving.
GREENWOOD, THOMAS - - -	80	8th Jan. 1868	Machinery for preparing to be spun, silk, china grass and other similar fibrous substances. (Communicated by M <sup>r</sup> . Auguste Veillon.)
GREENWOOD, THOMAS - - -	1761	28th May 1868	Machinery for assorting the fibres of dressed silk. (Partly communicated by Auguste Veillon.)
GREGG, S <sup>t</sup> . GEORGE - - -	2816	12th Sept. 1868	Coating iron and steel, and protecting such surfaces from the corrosive action of sea or salt water, and the oxidizing influences of damp air, wet and moisture.
GREGOR, ALEXANDER M <sup>c</sup> -	2739	5th Sept. 1868	Certain improvements in agricultural implements known as reaping and mowing machines.
GREGOR, WILLIAM M <sup>c</sup> - -	2672	28th Aug. 1868	Construction of telegraph and signal posts.
GREGORY, JAMES - - -	2031	24th June 1868	Apparatus for charring and preparing animal charcoal, so as to render it fit for use in the process of purifying saccharine and other matters.
GREGORY, JAMES - - -	2970	28th Sept. 1868	Apparatus for preparing and cooling animal charcoal.
GREGORY, JAMES - - -	3412	10th Nov. 1868	An improved construction of retort for charring bones to produce animal charcoal.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GREGORY, JOHN - - -	3296	28th Oct. 1868	Parts of the permanent way of railways. (Patented by Matthew Augustus Soul.)
GREGORY, THOMAS CURRIE -	1847	5th June 1868	Improvements in and connected with springs to be applied to railway rolling stock and otherwise. (Communicated by Elias Uriah Benedict.)
GREGSON, JAMES - - -	3243	23rd Oct. 1868	Looms for weaving.
GREGSON, JOHN BRUMWELL -	2116	2nd July 1868	An improved production of sulphate of lead to be used as a pigment or for other purposes.
GREIG, DAVID - - -	890	16th March 1868	Traction engines and other engines to travel on common roads.
GREIG, DAVID - - -	1986	19th June 1868	Improvements in lithographic printing machines, and in printing machines generally.
GREIG, DAVID - - -	3643	30th Nov. 1868	Casting plough heads, wheels and crank axles.
GREIG, DAVID - - -	3711	5th Dec. 1868	Construction of steam cultivating machinery.
GREIG, JOHN - - -	1986	19th June 1868	Improvements in lithographic printing machines, and in printing machines generally.
GRENIER, FRANCOIS - -	486	13th Feb. 1868	An improved kneading apparatus.
GRETHEN, ERNEST - - -	373	4th Feb. 1868	Machinery for cutting discs or washers of india-rubber and other substances.
GRICE, JAMES THOMAS - -	3817	15th Dec. 1868	Machinery for ornamenting metallic tubes and rods.
GRIFFEN, THEODORE - -	1639	19th May 1868	Improved apparatus for bleaching and cleansing fabrics.
GRIFFIN GEORGE FEATHER- [STONE.	1517	9th May 1868	A certain novel application to the corking of bottles, enabling the cork to be withdrawn without injury thereto.
GRIFFITHS, DAVID - - -	3437	12th Nov. 1868	Formation of timber bearers for roofs and other purposes.
GRIFFITHS, EDWARD SAMUEL	3856	18th Dec. 1868	Improved means or apparatus for carrying anchors inboard after being weighed.
GRIFFITHS, HENRY - - -	1772	29th May 1868	Means or apparatus for shearing or cutting the hair of horses and other animals.
GRIFFITHS, HENRY FRANCIS -	884	16th March 1868	Apparatus for puddling iron and steel.
GRIFFITHS, JOHN - - -	1148	4th April 1868	Manufacture of piles of iron or steel, or of iron and steel, for the manufacture of rails, angles, axles, tyres, shafts and other articles.
GRIFFITHS, JOHN - - -	2720	3rd Sept. 1868	A new or improved method or methods of and apparatus for uprooting or deforesting trees, roots and other matters.
GRIFFITHS, JOHN - - -	3108	9th Oct. 1868	Manufacture of piles of iron or steel, or of iron and steel, for the manufacture of rails, angles, axles, tyres, shafts and other articles.
GRIFFITHS, ROBERT - - -	3988	31st Dec. 1868	Improvements in propelling vessels and in the arrangement and construction of screw propellers and apparatus connected therewith.
GRIFFITHS, WILLIAM - - -	3754	10th Dec. 1868	Improvements applicable to bits and bridles.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GRIFFITHS, WILLIAM RICHARD	3438	12th Nov. 1868	Boilers or steam generators.
GRIME, ROBERT - - -	1302	22nd April 1868	Machinery for governing the speed of motive-power engines.
GRIME, ROBERT - - -	3869	19th Dec. 1868	Machinery for regulating the speed of motive-power engines.
GRIMES, JOHN - - -	322	30th Jan. 1868	Machinery or apparatus employed in the preparation or manufacture of the bottoms or soles and heels of boots and shoes.
GRIMSHAW, WILLIAM - -	2917	23rd Sept. 1868	Preparation of wool to be felted.
GRIMWOOD, WILLIAM - -	1521	9th May 1868	Coiling or revolving shutters.
GRINDROD, JONATHAN - -	3660	1st Dec. 1868	Improvements in the construction of screw ships or vessels and in propellers for the same, parts of which improvements are also applicable to paddle vessels.
GROS, JULES GABRIEL ALFRED	821	10th March 1868	Production of brown colouring matters for dying and printing. (Patented by Charles Denton Abel.)
GROS, JULES GABRIEL ALFRED	2548	15th Aug. 1868	Production of brown colouring matters for dying and printing. (Patented by Charles Denton Abel.)
GROUND, HENRY - - -	2633	24th Aug. 1868	Bushing the bung holes of casks and similar vessels.
GROUNDWATER, WILLIAM [LYELL.	3509	18th Nov. 1868	Improvements in machinery or apparatus for inserting and extracting the percussion caps of cartridges for fire-arms, and for shaping and crimping the shells or cases of the same, more especially designed for renovating discharged cartridges.
GROUT, WILLIAM HENRY [JAMES.	2910	22nd Sept. 1868	Construction of apparatus and moulds for the manufacture of tobacco pipes and other similar articles.
GRUBB, CHARLES ROBERT [EDWARD.	1900	10th June 1868	An improved manufacture of match box.
GRUET, FÉLIX - - -	2854	16th Sept. 1868	Electro-magnets. (Patented by Alexander Melville Clark.)
GRUET, FRÉDÉRIC - - -	2854	16th Sept. 1868	Electro-magnets. (Patented by Alexander Melville Clark.)
GRYLLS, HENRY WILLIAM -	3677	3rd Dec. 1868	Improved apparatus for obtaining and applying motive-power.
GUBAULT, PIERRE FRANÇOIS -	879	14th March 1868	Machinery for finishing boots and shoes.
GUEST, SIR IVOR BERTIE -	1783	30th May 1868	Improved apparatus for cutting or trimming the edges of lawns or grass plots.
GUILLAUME, HENRY - -	3534	20th Nov. 1868	Mode of fixing colours on textile fabrics composed of wool and cotton.
GUILLEMOT, ADOLPHE [CHARLES.	3621	27th Nov. 1868	Letter or paper clips. (Patented by Alexander Melville Clark.)
GUINNESS, WILLIAM STUART -	558	19th Feb. 1868	Sewing-machines.
GUISE, WILLIAM - - -	313	29th Jan. 1868	Improvements in scouring needles and other articles made of iron and steel wire, and in apparatus used for that purpose.
GUMPFL, CHARLES GODFREY	3153	15th Oct. 1868	Locks and latches.
GUNNER, CHARLES - - -	954	20th March 1868	Life-boats.
GUTHRIE, ALEXANDER - -	3526	20th Nov. 1868	Ploughs.

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## ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GUTHRIE, STAIR - - -	325	30th Jan. 1868	Improvements in or applicable to steam and other motive-engines, and to engines or apparatus for raising and forcing fluids or feeding steam-boilers.
GUTTRIDGE, CHARLES WIL- [LIAM.	399	6th Feb. 1868	An improved apparatus for cutting soap.
GUY, GEORGE FULLER - -	978	23rd March 1868	Manufacture of sugar and other alimentary substances from beet root.
GUYOT, AUGUSTE PIERRE -	2468	7th Aug. 1868	Breech-loading fire-arms. (Patented by Thomas Wesley Stapleton.)
GUZMAN, ADOLPHUS - -	3565	23rd Nov. 1868	Improvements in converting cast iron into wrought iron, and in uniting oxides, fluxes and other substances with molten cast iron. (Patented by Charles Denton Abel.)
GWYNNE, HENRY ANDERSON -	2398	30th July 1868	Improvements in the construction of and mode of employing and driving centrifugal pumps and pumping engines, and in surface condensers to be employed in conjunction therewith, parts of which improvements are applicable to other purposes.
GWYNNE, JOHN - - -	2398	30th July 1868	Improvements in the construction of and mode of employing and driving centrifugal pumps and pumping engines, and in surface condensers to be employed in conjunction therewith, parts of which improvements are applicable to other purposes.

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HAAS, EMIL - - -	3440	12th Nov. 1868	Sewing-machines.
HAAS-DEMURATH - - -	2820	14th Sept. 1868	Improved apparatus for generating carbonic acid, applicable to beer casks and other vessels for preserving, raising and transferring their contents. (Patented by Frederic Seeborn-Ultzen.)
HADDAN, JOHN COOPE - -	2228	15th July 1868	Improvements in strong rooms and in safes.
HADDAN, JOHN COOPE - -	2397	30th July 1868	Improvements in cannon and in machinery for manufacturing the same.
HADDAN, JOHN COOPE - -	3381	7th Nov. 1868	Improvements in cannon wads and in cannon, and in the mounting of cannon on carriages.
HADDAWAY, JOHN FREDERICK	963	21st March 1868	Blow-pipes.
HADFIELD, GEORGE - -	3837	17th Dec. 1868	Manufacture of varnish.
HADFIELD, WILLIAM - -	1669	21st May 1868	Certain improvements in looms for weaving.
HADFIELD, WILLIAM - -	2173	9th July 1868	Looms for weaving.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HADLAND, JAMES FRANCIS -	1079	30th March 1868	Metal ties for securing bales of cotton or other substance. (Communicated by John Edson Sweet.)
HADLEY, JONAH - - -	1998	20th June 1868	Improved apparatus for cleaning and decortivating wheat.
HADLEY, JONAH - - -	2538	13th Aug. 1868	Improved machinery for decortivating grain.
HADLEY, SIDNEY HOPTON -	2303	22nd July 1868	Improvements in decortivating wheat and in apparatus to be used for decortivating wheat and other grain.
HAFENEGGER, JOSEPH - -	2885	17th Sept. 1868	Explosive compounds. (Patented by William Robert Lake.)
HAGGAS, SAMUEL - - -	3768	11th Dec. 1868	Spinning and twisting frames.
HAIGH, THOMAS - - -	2602	21st Aug. 1868	Apparatus to be used in brewing.
HAIGHT, WILLIAM SYLVANUS	1760	28th May 1868	Improved apparatus for hopping beer. (Patented by William Edward Newton.)
HAINES, HIRAM - - -	1767	28th May 1868	Improvements in the manufacture of lead pipe and lead pipe lined or cased with tin or other metal, and in the machinery employed in such manufacture. (Communicated by William Anthony Shaw.)
HAKES, SOLOMON VAN RAN- [SALEAR.	3687	4th Dec. 1868	An improved machine for cutting edible roots. (Patented by William Robert Lake.)
HALBARD, PHILIP FANCKES -	817	9th March 1868	Stench traps.
HALK, JOSEPH - - -	197	20th Jan. 1868	Improvements in wood rings or washers and in machinery for manufacturing the same. (Patented by William Robert Lake.)
HALE, SHEPARD WILLIAM -	369	3rd Feb. 1868	Improvements in public and private carriages and vehicles in regard to opening and closing the heads or hoods of those having moveable heads or hoods, and opening and closing the doors of public and private carriages and vehicles generally.
HALL, DENNIS - - -	2115	2nd July 1868	Improvements in the construction of furnaces and in apparatus for supplying them with fuel.
HALL, FREDERIC THOMAS -	1487	6th May 1868	Manufacture of railway and other like tickets, to adapt the same as mediums for advertisements. (Communicated by Edouard Heit.)
HALL, GEORGE - - -	2837	15th Sept. 1868	Means or apparatus for washing or bleaching various articles.
HALL, GEORGE - - -	3530	20th Nov. 1868	Manufacture of fabric in lace machinery. (Patented by William Brookes.)
HALL, GEORGE - - -	3654	1st Dec. 1868	Means employed in the manufacture of fabric in lace machinery. (Patented by William Brookes.)
HALL, HENRY - - -	1681	21st May 1868	Apparatus for propelling vessels.
HALL, JAMES TURNER - -	3835	17th Dec. 1868	An improved self-acting rack or catch with or without hinge.
HALL, SYDNEY - - -	1528	9th May 1868	Manufacture of artificial fuel.
HALL, WILLIAM - - -	2651	26th Aug. 1868	Improvements in rotary engines to be worked by steam or other fluid, and which are also applicable to be used in raising or forcing fluids.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HALL, WILLIAM - - -	3530	20th Nov. 1868	Manufacture of fabric in lace machinery. (Patented by William Brookes.)
HALL, WILLIAM - - -	3854	1st Dec. 1868	Means employed in the manufacture of fabric in lace machinery. (Patented by William Brookes.)
HALL, WILLIAM HATHERTON	3413	10th Nov. 1868	Safety lamps.
HALLAM, WILLIAM - -	2519	12th Aug. 1868	A new or improved method of and apparatus for protecting the side springs or elastics of boots and shoes.
HALLAM, WILLIAM - -	2984	29th Sept. 1868	Conversion of tin plate shearings into tin plates.
HALLAS, DAVID - - -	3109	9th Oct. 1868	Apparatus for regulating the supply of gas to "burners."
HALLAS, GEORGE - - -	3109	9th Oct. 1868	Apparatus for regulating the supply of gas to "burners."
HALLIDAY, EDMUND WILLIAM	2921	23rd Sept. 1868	Means or apparatus for lubricating cylinders, shafts and the rubbing parts of machinery generally.
HALLIDAY, RICHARD - -	3422	11th Nov. 1868	Certain improvements in apparatus for oiling the axles of wagons used in collieries and for other purposes.
HALLIMOND, ROBERT - -	3847	17th Dec. 1868	An improved lubricator specially adapted for coal and other tubs used in mining operations.
HALLIWELL, ALEXANDER BOLD	84	8th Jan. 1868	Cutters for forming wood mouldings and for other like purposes. (Patented by William Robert Lake.)
HALLIWELL, ROBERT - -	320	30th Jan. 1868	Machines for spinning and doubling.
HALSEY, WILLIAM HENRY -	815	9th March 1868	A new and improved process for making articles from hard rubber and from other substances capable of being moulded in dies, and at the same time inlaying or inserting in and attaching to such articles metallic and other plates, for useful or ornamental purposes.
HALSTEAD, HENRY - - -	2229	15th July 1868	Improved means or apparatus for regulating the amount of gas supplied to street and other lamps, to render it unnecessary to shut off and relight the same.
HAMAR, LEON - - -	2101	1st July 1868	Rotary steam-engines. (Patented by William Brookes.)
HAMAR, LEON - - -	2102	1st July 1868	Electro-magnetic railway breaks. (Patented by William Brookes.)
HAMAR, LEON - - -	2103	1st July 1868	Meters for measuring water and other liquids. (Patented by William Brookes.)
HAMBLETON, FRANCIS HENRY	2308	22nd July 1868	Manufacture of laminated armour plates, and other forgings composed of sheets or bars of iron or steel, welded to one another by rolling.
HAMBLING, JEREMIAH ROBERT	1763	28th May 1868	Thrashing machines.
HAMEL, LEOPOLD - - -	1776	29th May 1868	Instruments for clipping lace and other fabrics.
HAMER, DANIEL - - -	1908	11th June 1868	Certain improvements in valves.
HAMER, JOHN - - -	2650	26th Aug. 1868	Certain improvements in looms for weaving.
HAMER, WILLIAM - - -	1890	10th June 1868	Furnaces of salt pans.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HAMILTON, FRANCIS - -	173	18th Jan. 1868	Certain improvements in carding-engines to be employed for carding cotton and other fibrous materials.
HAMILTON, JOHN - - -	2451	5th Aug. 1868	Manufacture of artificial fuel.
HAMILTON, JOHN - - -	3785	12th Dec. 1868	Tools and mechanism to be used for cutting and dressing stone, rocks or other similar materials.
HAMILTON, JOSEPH - -	396	5th Feb. 1868	Improvements in the construction of furniture expanders and in machinery to be used in making the same, which machinery is also applicable to other manufactures.
HAMILTON, MILTON ALEX- [ANDER.	18	2nd Jan. 1868	An improved churn.
HAMILTON, MILTON ALEX- [ANDER.	115	13th Jan. 1868	An improved device for holding pens, pencils, papers and other articles.
HAMILTON, MILTON ALEX- [ANDER.	324	30th Jan. 1868	An improved apparatus for cutting bread, vegetables and other substances.
HAMILTON, MILTON ALEX- [ANDER.	1619	16th May 1868	An improved churn.
HAMILTON, ROBERT - -	3293	28th Oct. 1868	Railway chairs.
HAMILTON, WILLIAM - -	1324	23rd April 1868	Improvements in the generating of steam and in the means or apparatus employed therefor.
HAMILTON, WILLIAM TIGHE -	2299	22nd July 1868	A dove-tailing machine.
HAMILTON, WILLIAM TIGHE -	2301	22nd July 1868	An improved method of converting circular into reciprocating motion.
HAMMANT, WILLIAM - -	1666	21st May 1868	A new or improved aerial machine or apparatus.
HAMMERSLEY, JOHN - -	757	5th March 1868	Construction of marine chronometer boxes.
HAMMOND, HENRY WOOD- [CROFT.	3692	21st Dec. 1868	A spring paul washer. (Communicated by Philip Justice.)
HAMMOND, THOMAS MONRO -	111	11th Jan. 1868	Pipes for smoking. (Patented by John Henry Johnson.)
HANCOCK, DAVID - - -	447	10th Feb. 1868	A new or improved method of and apparatus for working and communicating motion to signals on railways.
HANCOCK, JOHN THIBAUD -	3555	23rd Nov. 1868	Certain improvements in an apparatus for inducing motion in mobile substances or bodies, by the action of air and steam in combination. (Patented by William Henry Ibbett.)
HANCOCK, PHILIP HENRY -	607	24th Feb. 1868	Printing machines.
HANDYSIDE, JAMES BAIRD -	872	14th March 1863	Arrangements and apparatus for applying springs to railway rolling stock and otherwise.
HANN, EDMUND MILLS -	2464	6th Aug. 1868	Safety lamps.
HANN, WILLIAM - - -	419	7th Feb. 1868	Safety lamps.
HANN, WILLIAM - - -	2464	6th Aug. 1868	Safety lamps.
HANNAH, SAMUEL - - -	2079	29th June 1868	Certain improvements in fluid meters.
HANNAET, LOUIS - - -	2224	14th July 1868	Manufacture of door plates, name plates, stencil plates and sign plates, suitable for sign boards for the fronts and other parts of shops and other buildings, and for other similar purposes.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HANNART, LOUIS - - -	2225	14th July 1868	Manufacture of printers' type, numerals, and other characters and devices or designs capable of being printed from.
HANNART, LOUIS - - -	2985	29th Sept. 1868	A new tool or mould for moulding or casting discs or wheels requiring to have letters, characters, numerals or other devices or designs, formed around or about their circumferences in metal or other materials.
HANNART, LOUIS - - -	3099	9th Oct. 1868	Manufacture of door plates, name plates, stencil plates and sign plates, suitable for sign boards for the fronts and other parts of shops and other buildings, and for other similar purposes.
HANNECART, LOUIS EDOUARD	2354	27th July 1868	An improved indicator of time and distance for vehicles, applicable also for registering the speed of the said vehicles and the number of passengers carried by the same. <i>(Patented by Hector Auguste Dufrené.)</i>
HANNEN, HENRY - - -	2998	30th Sept. 1868	Improvements in the manufacture of white lead, and in the production of carbonic acid gas for the said manufacture and for other useful purposes. <i>(Patented by John Henry Johnson.)</i>
HANSON, JOHN - - -	2657	26th Aug. 1868	Breech-loading fire-arms.
HANSON, WILLIAM JAMES -	2203	13th July 1868	Dyeing wool or other fibrous substances.
HARA, CHARLES M. O' - -	79	8th Jan. 1868	An improved mode of propelling vessels. <i>(Patented by William Edward Newton.)</i>
HARA, CHARLES M. O' - -	3102	9th Oct. 1868	An improved system of ascertaining and checking the amount of money or number of fares taken by the conductors or drivers of omnibuses or other public vehicles. <i>(Patented by William Edward Newton.)</i>
HARDCASTLE, ROBERT AN- [THONY.	996	24th March 1868	Improvements in the manufacture of iron and steel, and in apparatus employed therein.
HARDCASTLE, THOMAS - -	1325	23rd April 1868	Manufacture of bowls for mangles, washing machines and other purposes.
HARDICK, CHARLES BROWN -	1334	23rd April 1868	Direct-acting engines and pumps.
HARDICK, JOHN - - -	1334	23rd April 1868	Direct-acting engines and pumps.
HARDING, GEORGE - - -	2199	11th July 1868	Locks. <i>(Patented by Clinton Edgcumbe Brooman.)</i>
HARDING, GEORGE - - -	2444	4th Aug. 1868	Harvesting machines. <i>(Patented by Benjamin Joseph Barnard Mills.)</i>
HARDMAN, WILLIAM - - -	3435	12th Nov. 1868	Machinery for the manufacture of spindles and flyers, part of which machinery is applicable for cutting screw threads for other purposes.
HARDWICK, SAMUEL - - -	1171	7th April 1868	Improvements in machinery for rolling sheets or plates of iron for the manufacture of tin and terne plates, which improvements may also be used for rolling sheets of iron for other purposes.
HARDY, ROBERT M <sup>c</sup> - - -	3397	9th Nov. 1868	An improved implement for hoeing land and removing weeds or superfluous plants therefrom.
HARE, JAMES - - - -	3483	16th Nov. 1868	Manufacture of apparatus for expanding tables.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HARFORD, GEORGE - -	424	8th Feb. 1868	Scaffolding and apparatus to be used for building and other similar purposes.
HARFORD, HENRY - -	687	28th Feb. 1868	Fastenings for window sashes.
HARGRAVE, THOMAS CLARE -	2211	13th July 1868	Railway carriages. (Patented by William Robert Lake.)
HARGREAVES, FREDERICK -	1710	25th May 1868	Looms for weaving.
HARGREAVES, HENRY - -	787	7th March 1868	Certain improvements in looms for weaving.
HARGREAVES, JAMES - -	1267	18th April 1868	Obtaining phosphates and phosphatic manures.
HARGREAVES, JAMES - -	2461	6th Aug. 1868	Improvements in the manufacture of steel and iron, and in the preparation of materials and agents, and in apparatus to be employed therein.
HARGROVE, CHARLES - -	1226	14th April 1868	An improvement in the manufacture of breech-loading actions.
HARGROVE, SAMUEL, junr. -	1226	14th April 1868	An improvement in the manufacture of breech-loading actions.
HARRINGTON, ALEXANDER [STUART.]	3949	28th Dec. 1868	An improved pouch for tobacco and other articles used by smokers.
HARLING, OLIVER - - -	3010	1st Oct. 1868	Improved means or apparatus for consuming or preventing the escape of smoke from steam-boiler and other furnaces, and collecting for utilization the waste products of combustion of the fuel.
HARLING, ROBERT - - -	2916	22nd Sept. 1868	Telegraphic instruments.
HARLOW, ROBERT - - -	1502	7th May 1868	Apparatus for supplying water to and withdrawing water from baths, wash-basins and other receptacles.
HARMAN, JOHN - - -	1784	30th May 1868	A new or improved drawing board for the purpose of stretching drawing paper.
HARMONY, MANUEL XIMENO -	2846	16th Sept. 1868	Means and apparatus for preserving meat, fowls, fish, eggs, fruit, vegetables and other animal or vegetable matter.
HARPER, JOHN ROBERT - -	2380	29th July 1868	Production or manufacture of strips or ribbons of zinc or alloys of zinc, suitable for being employed in the manufacture of telegraphic cables.
HARRINGTON, ROBERT - -	1442	2nd May 1868	Umbrellas and parasols.
HARRIS, AMOS - - -	3612	26th Nov. 1868	Heating apparatus for warming churches, chapels and other public and private buildings, by hot air.
HARRIS, CHARLES - - -	1001	24th March 1868	Certain improvements in machinery or apparatus to be employed in the manufacture of paper bags.
HARRIS, CHARLES JENKINS -	1420	30th April 1868	Machinery for spinning fibrous materials. (Patented by William Robert Lake.)
HARRIS, ISAAC BLUE - -	1787	30th May 1868	Pumps for actuating the pulp in paper-making machines.
HARRIS, ISAAC BLUE - -	3543	21st Nov. 1868	Manufacture of driving bands.
HARRIS, JAMES EDWARD HENRY	3493	17th Nov. 1868	Chimney pots.
HARRIS, JOHN - - -	2177	9th July 1868	Manufacture of wrought iron and steel.
HARRIS, SAMUEL JAMES -	3121	12th Oct. 1868	An improved mode of making and fastening together bedsteads.
HARRISON, CECIL REEVES -	732	3rd March 1868	Parallel rulers.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HARRISON, CHARLES - - -	3270	26th Oct. 1868	New (or improved) apparatus for indicating a rise or fall of temperature for fire alarm and other purposes.
HARRISON, CHARLES WEIGHT- [MAN.]	1347	24th April 1868	Improved means of preventing incrustation in boilers and other vessels in which water is heated.
HARRISON, EDWARD - - -	626	25th Feb. 1868	Certain improvements in the healds of looms for weaving.
HARRISON, EDWARD - - -	3205	20th Oct. 1868	An improvement in mills for grinding and flouring grain.
HARRISON, JAMES WILLIAM -	732	3rd March 1868	Parallel rulers.
HARRISON, JOHN - - -	2925	23rd Sept. 1868	Sewing-machines.
HARRISON, JOSEPH JOHN -	626	25th Feb. 1868	Certain improvements in the healds of looms for weaving.
HARRISON, ROBERT - - -	2731	4th Sept. 1868	Looms for weaving.
HARRISON, THOMAS - - -	3375	6th Nov. 1868	Pianofortes.
HARRISON, WILLIAM - - -	3461	14th Nov. 1868	Improvements in the construction of ovens or kilns for drying and firing or burning bricks, tiles, earthenware or other similar materials, and in apparatus connected therewith.
HARRISON, WILLIAM SAMUEL	2317	23rd July 1868	Improvements in the construction of clocks or other timekeepers, and in the method of and apparatus for regulating and setting them by the aid of electricity.
HARROP, JAMES JOHN - - -	1696	23rd May 1868	Production of iron and steel from ores and from waste products containing iron, as in the cases of hammer slag, forge cinder, and the residue arising from the manufacture of sulphuric acid from iron pyrites.
HARROWER, PETER - - -	223	22nd Jan. 1868	An improved spray producer for the production of medicated vapours.
HART, FREDERIC WILLIAM -	3118	10th Oct. 1868	A new (or improved) material or substance to be used for varnishing or protecting the surfaces of lithographs, photolithographs and other like printed surfaces.
HART, GEORGE - - -	670	27th Feb. 1868	An improved mode or method of and apparatus for effecting the consumption or prevention of smoke in steam-boiler and other like furnaces.
HART, HERBERT WILLIAM -	413	6th Feb. 1868	Manufacture of safety envelopes.
HART, HERBERT WILLIAM -	1997	20th June 1868	Pots, vessels and urns for containing tea, coffee, cocoa, chocolate and such like hot beverages.
HART, PETER - - -	3036	5th Oct. 1868	An improved method of utilizing the fumes or vapours evolved during certain chemical operations.
HART, THOMAS - - -	2315	23rd July 1868	Machinery employed in the manufacture of banding cords or twine, from cotton, hemp, flax or other fibrous materials.
HARTLEY, FREDERICK WILLIAM	46	7th Jan. 1868	Optical illusions used in conjunction with the magic lantern.
HARTLEY, GEORGE - - -	1828	4th June 1868	Construction of steam-boilers and generating apparatus in connection therewith.
HARTLEY, JOHN - - -	1115	2nd April 1868	Braiding machines.
HARTLEY, WILLIAM - - -	806	9th March 1868	A machine for preparing and conditioning yarn.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HARTMANN, CHARLES VON -	1687	22nd May 1868	Means and apparatus for drawing cop and other threads through shuttle holes and eyes. (Patented by Charles Denton Abel.)
HARTNELL, WILSON - -	325	30th Jan. 1868	Improvements in or applicable to steam and other motive-engines, and to engines or apparatus for raising and forcing fluids or feeding steam-boilers.
HARTSHORN, JAMES - -	763	5th March 1868	Manufacture of lace in twist lace machines.
HARVEY, GEORGE - - -	2415	31st July 1868	Certain improvements in holding and attaching cravat bows or fronts to shirt collars, which said improvements are also applicable to the use of ladies, for encompassing or attaching scarfs or kerchiefs or other articles of dress.
HARVEY, RICHARD - - -	2646	25th Aug. 1868	Sewing-machines.
HARVIE, WILLIAM - - -	1493	6th May 1868	Improvements in the construction of lamps and lanterns, and in lenses employed therewith.
HARWOOD, JOHN - - -	1127	3rd April 1868	Sewing-machines.
HASKINS, JOHN - - -	2471	7th Aug. 1868	India-rubber fabrics. (Patented by Bristow Hunt.)
HASLUCK, PAUL NOONCREE -	2606	21st Aug. 1868	Improvements in apparatus for registering the distance traversed by hackney carriages and other vehicles, applicable also for registering the number of revolutions made by a wheel or drum.
HASTIE, JOHN - - -	499	14th Feb. 1868	Apparatus for conveying and treating animal charcoal and sugar.
HASTINGS, CHARLES - - -	2051	26th June 1868	Machinery and apparatus for finishing yarns made of wool and other fibrous substances.
HASWELL, JOHN ARMSTRONG -	721	3rd March 1868	Signal apparatus to be used in railway passenger trains.
HATCH, JAMES - - -	2231	15th July 1868	A new or improved tool or chisel for mortising machines. (Patented by Robert Chamberlin.)
HATCH, THOMAS - - -	2260	18th July 1868	Shuttles employed in looms for weaving. (Patented by David Sowden and Reuben Calvert Stephenson.)
HATFIELD, ROBERT GRIFFITH -	2324	24th July 1868	Improvements in sliding door rollers, also applicable in other cases where reciprocating motion is employed.
HAUDUCQUR, FRANCOIS -	1758	28th May 1868	An improved apparatus for malaxating butter.
HAUER, HENRY - - -	1077	30th March 1868	Improvements in the treatment of cork and in the manufacture of a new compound or material therefrom, applicable to various useful purposes. (Patented by John Henry Johnson.)
HAUXWELL, GEORGE - - -	778	6th March 1868	Improvements in preparing hard foreign wheat for manufacturing into flour, and in apparatus to be employed for such purpose.
HAVARD, CHARLES - - -	2846	16th Sept. 1868	Means and apparatus for preserving meat, fowls, fish, eggs, fruit, vegetables and other animal or vegetable matter.
HAVELL, CHARLES RICHARD -	208	21st Jan. 1868	Water-heating apparatus.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HAVELL, CHARLES RICHARD -	1856	20th May 1868	Means or apparatus for heating water for baths and other purposes.
HAVENHAND, MARK - -	1035	26th March 1868	Pistons.
HAWKES, THOMAS - - -	1436	2nd May 1868	An improved seed and manure drill, parts of which invention are also applicable to other similar agricultural implements.
HAWKINS, ABDIEL - - -	2498	10th Aug. 1868	An improved process for producing raised printing surfaces.
HAWKINS, FREDERICK - -	2505	11th Aug. 1868	Mode of and apparatus used in manufacturing telegraphic insulated wires and cables.
HAWKINS, GEORGE H. - -	2859	16th Sept. 1868	Manufacture of heads for dolls and for other toys. (Patented by William Robert Lake.)
HAWTHORN, WILLIAM - -	842	11th March 1868	Steam generators and other boilers.
HAWTHORNTHWAITTE, MILES -	1090	31st March 1868	Taps, cocks or valves for water, gas, steam or other liquids.
HAY, EUGENE - - -	1151	6th April 1868	Means or apparatus for measuring and indicating the passage or flow of liquids. (Communicated by Claude Marie Bathias.)
HAY, JOHN - - -	398	5th Feb. 1868	A new method of roughing horses and of constructing horse-shoes.
HAY, JOHN - - -	3799	14th Dec. 1868	Improvements in engine counters, parts of which improvements are applicable to other useful purposes.
HAYDEN, PETER - - -	2023	23rd June 1868	An improved construction of brick machine. (Patented by Alfred Vincent Newton.)
HAYEM, SIMONAINÉ - -	2057	26th June 1868	An improved fastening for neckties, scarfs and other articles. (Patented by Samuel Solomon Maurice.)
HAYES, JAMES, the elder - -	2016	22nd June 1868	Machinery for actuating straw shakers and vibratory screens or riddles.
HAYES, JOSIAH - - -	2016	22nd June 1868	Machinery for actuating straw shakers and vibratory screens or riddles.
HAYHURST, GEORGE - -	1012	25th March 1868	Drying cylinders employed in sizing and other machines.
HAYNE, BENJAMIN - -	328	30th Jan. 1868	Mode of connecting beer-engine pipes with their taps.
HAYNES, CHARLES - -	3731	6th Dec. 1868	Manufacture of sheet-metal casks.
HAYNES, WILLIAM - -	2889	19th Sept. 1868	Machinery or apparatus to be used in the several processes of dressing leather.
HAYWARD, HENRY - -	2465	6th Aug. 1868	Felted fabrics. (Patented by William Robert Lake.)
HAZARD, HENRY HERBERT -	904	17th March 1868	Coiling or revolving shutters.
HAZARD, HENRY HERBERT -	1521	9th May 1868	Coiling or revolving shutters.
HAZARD, HENRY HERBERT -	3845	17th Dec. 1868	Improvements in shutters and blinds for windows, doorways and other apertures, and in the means for adjusting the same.
HEA, JOHN BRYAN O' - -	2912	22nd Sept. 1868	Improvements in the manufacture of rifled barrels for small arms and ordnance, and in apparatus to be employed in such manufacture.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HEA, JOHN BRYAN O' - -	3286	27th Oct. 1868	Improvements in breech-loading fire-arms and in cartridges to be used therewith, which improvements are also applicable to breech-loading ordnance and their cartridges.
HEACOCK, THOMAS - - -	3089	8th Oct. 1868	Door knobs or handles.
HEAD, JEREMIAH - - -	139	15th Jan. 1868	Furnaces for puddling, boiling, melting or heating iron or steel.
HEAD, JEREMIAH - - -	2133	4th July 1868	Furnace grates and apparatus or appliances to be used therewith.
HEAD, JOHN - - - -	2873	17th Sept. 1868	Improvements in constructing wire fences and in apparatus used therein. (Communicated by William Archibald Murray.)
HEAD, RICHARD - - -	3170	16th Oct. 1868	Stoves and boilers for heating water for baths and other purposes.
HEAD, THOMAS HOWARD -	840	11th March 1868	Improvements in rolling iron and steel, and in wrought girders and joists, and in machinery for producing the same.
HEAD, THOMAS HOWARD -	2318	23rd July 1868	Hydraulic apparatus for lifting, hauling and lowering.
HEADLY, EDWARD PAGET [GILLAM.]	2510	12th Aug. 1868	An improved hydraulic apparatus for watering streets, roads, gardens and other places, extinguishing fires, attaching to fire-engines, and other similar or analogous purposes.
HEAP, JOSHUA - - -	2957	26th Sept. 1868	A new system of gearing which is applicable to lathes, drilling, shaping and screwing machines, and also applicable in all cases where an extra purchase or concentration of mechanical power is required.
HEARTFIELD, JOHN - -	2715	2nd Sept. 1868	Manufacture of porous or spongy substances from india-rubber, gutta-percha, balata or their compounds.
HEARTFIELD, JOHN - -	3215	20th Oct. 1868	Improvements in sponging or bath gloves, part of which invention is also applicable to the joining india-rubber sponge.
HEASLER, WILLIAM - -	3268	26th Oct. 1868	Machinery for coating wire with india-rubber, gutta-percha and other materials, for telegraphic and other purposes.
HEATH, GEORGE ARTHUR -	88	9th Jan. 1868	Sash fastenings.
HEATHFIELD, RICHARD -	158	17th Jan. 1868	Machinery for the manufacture of nails and tacks. (Communicated by John Henry Geary.)
HEATHFIELD, RICHARD -	603	22nd Feb. 1868	Manufacture of cut nails.
HEATHFIELD, RICHARD -	1406	29th April 1868	Machinery for the manufacture of cut nails. (Communicated by Cyrus Dexter Hunt.)
HEATON, JOHN - - -	1432	2nd May 1868	Reverberatory and other furnaces.
HEATON, JOHN - - -	2417	31st July 1868	Treatment of cast iron.
HEATON, JOHN - - -	2418	31st July 1868	Production of steel and other compounds of iron and carbon resembling steel.
HEATON, JOHN - - -	2591	19th Aug. 1868	Rails for the permanent way of railways.
HEATON, JOHN - - -	3313	29th Oct. 1868	Production of iron and steel.
HEATON, JOHN - - -	3634	28th Nov. 1868	Improvements in the treatment of cast iron and in the apparatus employed therein.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HÉBERT, LOUIS PIERRE - -	2662	27th Aug. 1868	An improved press for stamping letters, books and documents, with ink or other coloring matter.
HECKE, ENGLEBERT THÉO- [PHILE VAN.	3290	27th Oct. 1868	Locomotive engines.
HECKE, ENGLEBERT THÉO- [PHILE VAN.	3592	25th Nov. 1868	Steam-boilers.
HECTOR, JOHN MARSDEN - -	2290	21st July 1868	Improvements in fusee boxes and in mechanism connected therewith.
HÉDIARD, ALEXANDRE - -	2502	11th Aug. 1868	Improvements in propelling vessels and in apparatus for the same, also applicable for other purposes. (Patented by Alexander Melville Clark.)
HEILMANN, RUDOLPH - -	3036	5th Oct. 1868	An improved method of utilizing the fumes or vapours evolved during certain chemical operations.
HEINEMANN, THEODORE WIL- [LIAM.	1363	25th April 1868	Purifying, seasoning and preserving wood and making it water and fire proof. (Patented by Richard Cocker.)
HEIT, EDOUARD - - -	1497	6th May 1868	Manufacture of railway and other like tickets, to adapt the same as mediums for advertisements. (Patented by Frederic Thomas Hall.)
HELLWAG, BERNHARD - -	2495	10th Aug. 1868	A new or improved system or mode of telegraphing on board of steam ships, and in the means or apparatus employed therefor, also applicable for other vessels and purposes.
HELY, ALFRED AUGUSTUS -	3434	12th Nov. 1868	Umbrellas, sunshades and parasols.
HELY, EDWARD - - -	3666	2nd Dec. 1868	Machinery for the manufacture of envelopes.
HEMINGTON, JAMES - -	1982	18th June 1868	Machinery or apparatus for grinding or sharpening the cutters of reaping and mowing machines.
HENDERSON, ARTHUR CHARLES	1485	6th May 1868	Improvements in the mode of manufacturing albumen and in the apparatus connected therewith. (Communicated by Lasare Lévy.)
HENDERSON, ARTHUR CHARLES	1499	7th May 1868	Manufacture of plates for heliographic engraving. (Communicated by Octave Victor Fournier.)
HENDERSON, ARTHUR CHARLES	1500	7th May 1868	An improved mode of renovating files by an electro-chemical process. (Communicated by Le Comte Henry de la Tour du Breuil, Le Comte Thomas de Dienheim Brochocky and Horace Baynes.)
HENDERSON, ARTHUR CHARLES	2796	10th Sept. 1868	Improvements in the ornamentation of boot and shoe straps, and in elastic side springs. (Communicated by Henri Suser.)
HENDERSON, THOMAS - -	2669	28th Aug. 1868	Sewing-machines.
HENDERSON, WILLIAM - -	1910	11th June 1868	Apparatus for finishing woven fabrics.
HENDRY, JOHN - - -	1009	25th March 1868	Improved machinery or apparatus for mashing substances employed in the making of fermented liquors.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HENGST, CHARLES - - -	1990	18th June 1868	An improved mode of and means for manufacturing gas for lighting and heating purposes.
HENGST, CHARLES - - -	2931	24th Sept. 1868	Manufacture of carburetted hydrogen or luminous gas.
HENKEL, HENRY - - -	3433	12th Nov. 1868	Improvements in breech-loading fire-arms, and in cartridges to be used therewith and with other descriptions of breech-loading fire-arms. (Communicated by Gustav Bloem and Ernst Scheidt.)
HENLEY, THOMAS FREDERICK	3967	30th Dec. 1868	Improved means of operating upon stick or gum lac, for the extraction of coloring matter or lac dye, and for the production of shell lac.
HENRY, ERNEST - - -	990	24th March 1868	An improved smoke consuming fire-place or furnace. (Patented by William Edward Newton.)
HENRY, MICHAEL - - -	561	19th Feb. 1868	Improvements in the manufacture of nails and in machinery or apparatus employed in the said manufacture. (Communicated by Emile Leon Dubruel.)
HENRY, MICHAEL - - -	1489	6th May 1868	Improvements in the manufacture of steel and iron and other metals, and in furnaces employed in the said manufacture. (Communicated by Coignet, père et fils, et Compagnie.)
HENRY, MICHAEL - - -	1841	5th June 1868	Improvements in converting basic phosphates of lime into soluble acid phosphates of lime, and in obtaining and utilizing sulphate of lime. (Communicated by Ernest Deligny.)
HENRY, MICHAEL - - -	2181	3rd July 1868	Manufacture and construction of receptacles for preserves and other provisions. (Communicated by Emile Peltier and Albert Paillard.)
HENRY, MICHAEL - - -	2809	11th Sept. 1868	Improvements in apparatus for weighing, and also in cranes or lifting apparatus combined with weighing apparatus. (Communicated by Pierre Michaud and Louis Joseph Jay.)
HENRY, SAMUEL BETTON -	371	4th Feb. 1868	Treatment of compressed or embossed wood. (Patented by John Henry Johnson.)
HENSON, HENRY HENSON -	2109	2nd July 1868	Construction of railway wagons and trucks.
HENSON, HENRY HENSON -	2516	12th Aug. 1868	Metallic ropes.
HENWOOD, CORNWALL -	3811	15th Dec. 1868	Improved means or apparatus to be employed in diving or subaqueous operations. (Patented by Clinton Edgcumbe Brooman.)
HENWOOD, NICHOLAS - -	3023	2nd Oct. 1868	Mowing and reaping machines.
HEPPELL, THOMAS - - -	1991	19th June 1868	Miner's safety lamps.
HEPTONSTALL, CHARLES -	2927	23rd Sept. 1868	Looms for weaving.
HEPWORTH, JAMES - - -	1871	27th April 1868	Boilers and furnaces.
HERBERT, ABRAHAM BURBERY	1509	8th May 1868	"Knotters" for straining paper pulp.
HERRING, EDWARD - - -	2375	29th July 1868	Treatment of saccharine solutions of malt or sugar.



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## ALPHABETICAL INDEX OF PATENTEEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HERRMANN, RUDOLF - -	1483	6th May 1868	Manufacture of friction matches and fuseses. (Patented by Jarvis Palmer and James Brecknock Palmer.)
HERRMANN, RUDOLF - -	1762	28th May 1868	Manufacture of matches and fuseses, and of friction surfaces to be used therewith. (Patented by Jarvis Palmer and James Brecknock Palmer.)
HETHERINGTON, JOSEPH -	1640	20th May 1868	Machinery for stretching woven fabrics.
HETHERINGTON, JOSEPH -	2824	14th Sept. 1868	Improvements in or applicable to machines for winding yarn or thread.
HEUSSER, EDWARD - -	2843	15th Sept. 1868	Fastenings and locks for travelling bags, pocket books, writing cases and other receptacles.
HEWES, JOSEPH - - -	2827	14th Sept. 1868	An apparatus for day or night advertising on land or afloat.
HEYWOOD, BENNETT JOHNS -	65	7th Jan. 1868	An improved construction of coffee roaster.
HEYWOOD, BENNETT JOHNS -	183	18th Jan. 1868	Manufacture of pencil cases.
HEYWOOD, HARVEY - -	3618	27th Nov. 1868	Machinery or apparatus for washing and dyeing silk and other yarns.
HICKISSON, JAMES - -	2550	15th Aug. 1868	An improved pencil for marking on linen and other fabrics.
HICKISSON, JAMES - -	3415	10th Nov. 1868	Manufacture of pencils for writing or marking on linen and other textile fabrics and on other surfaces.
HICKLING, WILLIAM EDWIN -	3284	27th Oct. 1868	Improved machinery for washing casks and such like articles.
HICKMOTT, JOSEPH - -	1467	5th May 1868	Preserving metallic articles from oxidation and decay.
HICKS, JAMES - - -	1593	15th May 1868	The application of a method or methods of connecting or disconnecting the bellows, or the bellows and windchest, with the notes or reeds and keyboard in certain musical instruments.
HICKS, JAMES JOSEPH - -	276	27th Jan. 1868	Manufacture of backs and handles for hand mirrors.
HICKS, JAMES JOSEPH - -	3464	14th Nov. 1868	Means or apparatus for measuring and registering the quantities of flowing liquids, which invention may be used as a rain gauge or as a liquid meter, and for measuring the strength of liquor run off from a still or other apparatus or vessel.
HICKS, WILLIAM CLEVELAND	280	27th Jan. 1868	Improved machinery for grinding and polishing concave surfaces. (Patented by William Edward Newton.)
HIDE, THOMAS COMINGS -	1979	18th June 1868	Improvements in dressing flax, and in drawing, roving and spinning flax and tow, and in apparatus to be used for these purposes. (Communicated by John M'Dermotts.)
HIELAKKER, JEAN VANDER -	2320	23rd July 1868	Rotary steam-engines. (Patented by Clinton Edgcumbe Brooman.)
HITTEL, JOHN WENZEL -	1806	2nd June 1868	Lever escapements for watches or time-keepers. (Patented by William Edward Newton.)
HITTEL, JULIUS - - -	1806	2nd June 1868	Lever escapements for watches or time-keepers. (Patented by William Edward Newton.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HIGGIN, JAMES - - -	2351	27th July 1868	Improvements in making aniline black and in applying it to textile fabrics and yarns.
HIGGINBOTHAM, JOSEPH -	542	19th Feb. 1868	Machinery for turning, grinding and polishing rollers or cylinders composed of metal or other material.
HIGGINS, GEORGE HIGGONS -	730	3rd March 1868	Improvements in the manufacture of match boxes and in apparatus to be used therein.
HIGGINS, JAMES - - -	1697	23rd May 1868	Machinery for spinning and doubling cotton and other fibrous materials.
HIGHAM, JAMES ANDREW [BOLTON.]	573	20th Feb. 1868	Apparatus for shearing or clipping the wool or hair of sheep and other animals. (Patented by William Robert Lake.)
HIGHTON, HENRY, M.A. -	2048	25th June 1868	Improvements in the manufacture of artificial stone or slate, and in colouring the same.
HIGHTON, HENRY, M.A. -	3006	1st Oct. 1868	Improvements in the manufacture of artificial stone and slate, and in colouring and preserving the same, part of which are also applicable to the preservation of walls and other surfaces.
HILF, MORITZ - - -	2210	13th July 1868	Permanent way of railways. (Patented by William Robert Lake.)
HILL, ALSAGER HAY - -	697	29th Feb. 1868	Luggage labels or pads.
HILL, CHARLES GREY - -	1186	8th April 1868	Manufacture of fringes and purl and other edgings or trimmings.
HILL, DAVID - - -	2511	12th Aug. 1868	Manufacture of iron and steel.
HILL, HENRY - - -	1317	22nd April 1868	Improvements in waterclosets and in ball and other cocks, taps and valves.
HILL, JAMES - - -	3667	2nd Dec. 1868	Means of and apparatus for signalling on railways.
HILL, JAMES CHARLES - -	300	28th Jan. 1868	Machinery for obtaining motive-power, applicable also to measuring, raising, exhausting, forcing and compressing fluids.
HILL, JAMES CHARLES - -	3940	24th Dec. 1868	Machinery for obtaining motive-power, applicable also to measuring, raising, exhausting, forcing and compressing fluids.
HILL, JOHN - - -	3301	28th Oct. 1868	Manufacture of tooth brushes and other brushes.
HILL, PEARSON - - -	928	19th March 1868	Breaks for perambulators and other vehicles propelled by hand.
HILL, PEARSON - - -	3462	14th Nov. 1868	Instruments or apparatus for preparing the strips of paper or other material employed for conveying signals in electric telegraph apparatus.
HILL, RICHARD - - -	1274	18th April 1868	Paddle and other wheels used in air or water, for propelling or driving ships or vessels or machinery.
HILL, THOMAS - - -	642	26th Feb. 1868	Bearings for axles and shafts. (Communicated by John T. Buen.)
HILL, THOMAS - - -	3640	30th Nov. 1868	Construction of organs.
HILLEBRAND, LOUIS - -	269	25th Jan. 1868	A new or improved bell pull for door bells. (Patented by Alexander Charles Montague Prince.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HILLEBRAND, LOUIS - -	2345	25th July 1868	A new or improved bell pull for door bells. (Patented by Alexander Charles Montague Prince.)
HILLEBRANDT, HERMANN - -	3943	24th Dec. 1868	Repeating fire-arms. (Communicated by Joseph Hillebrandt.)
HILLEBRANDT, JOSEPH - -	3943	24th Dec. 1868	Repeating fire-arms. (Patented by Hermann Hillebrandt.)
HILLIARD, OSBORNE - -	961	21st March 1868	Means and appliances for conveyance, transport and locomotion. (Communicated by Casimir Comte de Mankowski.)
HILLS, FRANK CLARKE - -	1399	25th April 1868	Improvements in the manufacture of gas and in the purification of "gas liquor," and in utilizing gas tar and crude hydrocarbon oils, and in furnaces for effecting the combustion of the said gas tar or hydrocarbon oils.
HILLS, LEWIS McDONALD - -	2312	23rd July 1868	Improvements in the mode of treating flax and in apparatus employed therein. (Patented by Edward Thomas Hughes.)
HINDE, WILLIAM JOHN - -	2559	17th Aug. 1868	Improved means or apparatus for holding candles in the sockets of candlesticks, and raising and burning the ends out.
HINE, JOHN - - - -	2050	26th June 1868	Apparatus for cutting or dressing millstones.
HINE, JOHN - - - -	3409	10th Nov. 1868	Apparatus for cutting or dressing millstones.
HINE, JOHN - - - -	3789	12th Dec. 1868	Apparatus for cutting or dressing millstones.
HINKS, JAMES - - - -	532	18th Feb. 1868	Portable stoves.
HINKS, JOSEPH - - - -	532	18th Feb. 1868	Portable stoves.
HIRD, JAMES - - - -	2490	8th Aug. 1868	Means of and apparatus for obtaining and applying motive-power.
HIRSCH, SIMON - - - -	3689	4th Dec. 1868	Improvements in dyeing yarns in hanks or skeins, and in the mechanism or apparatus employed therefor. (Communicated by Longin Gantert.)
HIRSCHHORN, LOUIS - -	1453	4th May 1868	Lockets. (Communicated by Henry Geissel.)
HIRST, JOSEPH - - - -	104	11th Jan. 1868	Improved machinery to be employed in the manufacture of clog soles and patten boards.
HIRST, WRIGHT - - - -	104	11th Jan. 1868	Improved machinery to be employed in the manufacture of clog soles and patten boards.
HIRZEL, HEINRICH - -	1785	30th May 1868	Improvements in the production of inflammable gas and in apparatus to be used therefor.
HITCHCOCK, WELCOME - -	151	16th Jan. 1868	Baskets for containing fruit and other goods. (Patented by John Gustavus Rollins.)
HOCKING, JOHN, the younger -	2950	25th Sept. 1868	Calcining ores and minerals.
HODGE, HENRY - - - -	239	23rd Jan. 1868	Gas stoves for heating purposes.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HODGE, PAUL RAPSEY - -	2065	27th June 1868	Improvements in and application of the use of hydrocarbonaceous fluids, in combination with highly attenuated or superheated steam, for the purposes of smelting, melting, reheating and working of metals, glass, porcelain or calcareous materials.
HODGE, PAUL RAPSEY - -	2578	18th Aug. 1868	Improvements in the manufacture of black or brown pigments to be used in the manufacture of paints or printing ink, and in the treatment and preparation of certain natural products used in the manufacture of such pigments.
HODGE, WILLIAM - - -	2578	18th Aug. 1868	Improvements in the manufacture of black or brown pigments to be used in the manufacture of paints or printing ink, and in the treatment and preparation of certain natural products used in the manufacture of such pigments.
HODGSON, JOHN - - -	852	12th March 1868	Improvements in railway and other signals and in mechanism for actuating the same.
HODGKIN, JOHN ELIOT - -	1188	8th April 1868	Machinery and processes for scutching, dressing, cleaning, treating and preparing flax, hemp and other vegetable fibrous materials, and the tow of the same.
HODGKINSON, GEORGE - -	1051	27th March 1868	Method of producing designs or patterns upon woven fabrics.
HODGSON, CHARLES - - -	2281	20th July 1868	Improved means of and apparatus for transporting loads.
HODGSON, DANIEL - - -	133	15th Jan. 1868	Machinery for cutting grass and corn.
HODGSON, GEORGE - - -	2365	28th July 1868	Looms for weaving.
HODGSON, JOHN - - -	3855	18th Dec. 1868	Apparatus employed in weaving.
HODGSON, NATHAN - - -	108	11th Jan. 1868	Engines to be worked by water pressure, compressed air or other elastic fluid.
HODSON, RICHARD - - -	2845	15th Sept. 1868	An improved construction of punching machine.
HOFFMAN, WILLIAM PITT - -	981	19th March 1868	Ventilating windows and window-blinds. (Patented by William Robert Lake.)
HOFFMANN, ADAM LEWIS - -	2442	4th Aug. 1868	Yards and parts connected therewith for carrying ships' square sails.
HOFFMANN, FRIEDRICH - -	604	24th Feb. 1868	Improvements in the burning of bricks, lime, cement and other like substances, and in the kilns employed therein. (Patented by Humphrey Chamberlain, John Craven and Hermann Wedekind.)
HOFFMANN, FRIEDRICH - -	943	19th March 1868	Improvements in the burning and drying of bricks, lime, cement and other like substances, and in the kilns employed therein. (Patented by Humphrey Chamberlain, John Craven and Hermann Wedekind.)
HOGG, EDWARD - - -	3482	16th Nov. 1868	Machines for straightening and planishing rolled iron.
HOGG, JAMES ALLISON - -	504	15th Feb. 1868	Method of and means for increasing the combustion and illuminating power of gas.
HOGG, JAMES ALLISON, the younger.	2349	27th July 1868	An improved lamp.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOLBROOK, AMOS, junr. - -	1539	11th May 1868	A machine for sewing books.
HOLCROFT, GEORGE - -	2436	3rd Aug. 1868	Certain improvements in breech-loading fire-arms and ordnance.
HOLCROFT, GEORGE - -	3019	2nd Oct. 1868	Certain improvements in steam-engines.
HOLDEN, EDWARD - -	3347	4th Nov. 1868	Apparatus for preparing wool or other fibres.
HOLDEN, ISAAC - -	3219	21st Oct. 1868	Means or apparatus employed in combing wool and other fibres.
HOLDER, THOMAS - -	3768	11th Dec. 1868	Improved appliances to be adapted to horse-shoes as a substitute for what is termed "roughing."
HOLDING, JOSEPH - -	1360	25th April 1868	Healds employed in looms for weaving.
HOLDING, JOSEPH - -	2537	13th Aug. 1868	"Healds" or "harness" employed in looms for weaving.
HOLDING, JOSEPH - -	2613	22nd Aug. 1868	Certain improvements in looms for weaving.
HOLDING, RICHARD - -	1360	25th April 1868	Healds employed in looms for weaving.
HOLDSWORTH, WILLIAM - -	2946	25th Sept. 1868	Planing, boring and slotting machinery.
HOLIDAY, RICHARD - -	1165	7th April 1868	Improved means and apparatus for the prevention of accidents at facing points on railways.
HOLLAND, CHARLES - -	2759	7th Sept. 1868	Improved compositions for the production of artificial stones, tiles and pipes, and useful also as cements, paints and for stuccoes. (Communicated by George Alexander Frear.)
HOLLAND, CHARLES MENZIES	457	11th Feb. 1868	Construction of the permanent way of railways and tramways.
HOLLEY, ALEXANDER LYMAN	1167	7th April 1868	Manufacture of iron and steel.
HOLLEY, ALEXANDER LYMAN	1618	16th May 1868	Apparatus employed in the manufacture of iron and steel. (Patented by William Robert Lake.)
HOLLINGWORTH, OLLIVE -	3323	16th Dec. 1868	An improved combined open and closed carriage.
HOLLINGWORTH, WILLIAM -	2229	15th July 1868	Improved means or apparatus for regulating the amount of gas supplied to street and other lamps, to render it unnecessary to shut off and relight the same.
HOLLINSHEAD, WILLIAM -	2808	11th Sept. 1868	Gas-engines.
HOLMA, AUGUSTE - -	1431	1st May 1868	Machinery or apparatus for burling and shearing textile fabrics. (Patented by John Henry Johnson.)
HOLMAN, STEPHEN - -	1046	27th March 1868	Improvements in the construction and application of steam pumps, parts of which improvements are also applicable to other pumps, blast engines, exhausters and other machines, also improvements in hydraulic lifts and the mode of working the same.
HOLME, HENRY - -	856	13th March 1868	Sewing-machines.
HOLME, JOHN - -	856	13th March 1868	Sewing-machines.
HOLMES, DANIEL MOREY -	3497	17th Nov. 1868	An improved machine for making ginger and other snaps from soft dough. (Patented by Alexander Clark.)
HOLMES, FREDERIC HALE -	2060	26th June 1868	Electro-magnetic and magneto-electric machines.
HOLMES, FREDERICK - -	3427	11th Nov. 1868	Manufacture of smoking pipes.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOLMES, JOHN - - -	3710	5th Dec. 1868	Construction of kilns for the purpose of burning articles made from plastic materials.
HOLMES, JOSEPH ELLICOTT -	1718	25th May 1868	Improved machinery for cutting or dressing stone.
HOLMES, JOSEPH ELLICOTT -	3342	3rd Nov. 1868	New or improved torsion springs. (Patented by Bryan Johnson.)
HOLMES, NATHANIEL JOHN -	2665	28th Aug. 1868	Electric telegraphs and apparatus connected therewith.
HOLMES, SAMUEL - - -	973	23rd March 1868	Lamps for burning oils and spirits.
HOLMES, WILLIAM CART- [WRIGHT.]	2700	1st Sept. 1868	Apparatus used in the manufacture of gas. (Communicated by Benjamin Warnes Thurston.)
HOLNESS, STEPHEN - - -	869	14th March 1868	Improvements in or additions to speaking tubes for intercommunication in railway trains, buildings, and other places where such tubes are or may be used.
HOLT, CHARLES HERBERT -	2221	14th July 1868	Operating piston valves of steam-engines.
HOLT, CHARLES HERBERT -	2253	17th July 1868	Improvements in boilers for generating steam, and in apparatus connected therewith for heating the feed water.
HOLT, EDWARD - - -	2002	20th June 1868	Valve gear for steam and other motive engines.
HOLT, FRANCIS - - -	3600	26th Nov. 1868	Certain improvements in steam-engines.
HOLT, GREENWOOD - - -	3432	12th Nov. 1868	Manufacture of pickers.
HOLT, ISAAC - - -	3350	4th Nov. 1868	Machinery for spinning and doubling fibrous materials.
HOLT, JAMES - - -	3350	4th Nov. 1868	Machinery for spinning and doubling fibrous materials.
HOLT, JOSEPH - - -	2164	8th July 1868	Printing machines.
HOLT, RICHARD - - -	1378	27th April 1868	Improvements in "papering" and "pressing" in the "finishing" of woven fabrics, and in the means or apparatus employed therein.
HOLT, SAMUEL - - -	1490	6th May 1868	Improvements in means or arrangements for making observations on railways for the purpose of preventing accidents, and in signalling or communicating between one part of a railway train and another.
HOLT, SAMUEL - - -	3432	12th Nov. 1868	Manufacture of pickers.
HOLT, THOMAS - - -	1180	6th April 1868	Machinery for spinning and doubling cotton and other fibrous substances.
HOLT, WILLIAM - - -	3350	4th Nov. 1868	Machinery for spinning and doubling fibrous materials.
HOMFRAY, ALFRED - - -	1407	29th April 1868	Improvements in the manufacture of iron or steel shackles, swivels, hooks, slips, and other kinds of iron or steel fastenings welded into an eye shape, and in machinery to be used in the said manufacture, which improvements are also applicable to the manufacture of the tyres of wheels.
HOMFRAY, ALFRED - - -	2263	20th July 1868	Improvements in separating coal, cokes and breezes, from bats and other impurities, and in machinery or apparatus to be employed for that purpose, which improvements and machinery or apparatus may be applied to the separation of various other substances.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOMFRAY, ALFRED - -	3718	7th Dec. 1868	Improvements in the manufacture of coke and in machinery or apparatus to be employed in the said manufacture.
HONEYMAN, JOHN, junior -	404	6th Feb. 1868	Arrangements and apparatus for trapping and ventilating in connection with drain or other pipes.
HOOKE, PETER - - -	3672	2nd Dec. 1868	Brick making machinery.
HOOKHAM, GEORGE - -	3921	23rd Dec. 1868	Improvements in sash lines and pulleys for the same, also in fastening such lines to sashes, and in sashes and frames used therewith, such improvements in sash lines being applicable to cords, lines, straps and bands for cranes and other purposes.
HOOPER, WILLIAM - -	939	19th March 1868	Improvements in treating india-rubber, and in the manufacture therefrom of fabrics and of insulated telegraphic conductors.
HOOPER, WILLIAM WILLIAMS	106	11th Jan. 1868	Apparatus for giving signals on board ship or other places.
HOPE, RALPH ALFRED - -	656	27th Feb. 1868	A machine for adding sweetening and other ingredients to aerated mineral and other beverages.
HOPKINS, JOHN DOUGLAS -	3524	20th Nov. 1868	Apparatus for opening and closing window-sashes.
HOPWOOD, OSWALD - -	2094	30th June 1868	Mechanism or apparatus to be employed for numbering and printing tickets consecutively.
HORN, THOMAS STORY - -	1766	28th May 1868	Miner's safety lamps.
HORNER, FREDERICK - -	2316	23rd July 1868	Certain improvements in the manufacture of chandeliers, bedsteads, tin and iron cans, kettles and pans, and such other domestic articles as have hitherto been made of expensive metals, such as copper and brass.
HORNSEY, RICHARD - -	3683	3rd Dec. 1868	Reaping and mowing machines.
HORROCKS, JOHN - - -	2848	16th Sept. 1868	Certain improvements in looms for weaving.
HORELEY, THOMAS - - -	710	2nd March 1868	Breech-loading fire-arms.
HORTON, EDWARD - - -	2967	30th Sept. 1868	Certain improvements in the manufacture of chandeliers and other gas fittings, having especial reference to the pulley wheels, rosettes and balance weights, smoke shades, argand burners, and other similar parts used therein.
HOSKING, JOHN, the younger -	162	17th Jan. 1868	Improvements in the cutting heads of instruments used in drilling, boring, tunnelling or otherwise penetrating rock, stone or other hard material.
HOSKINS, EBENEZER - -	433	8th Feb. 1868	Certain improvements in metallic bedsteads.
HOSKOLD, HENRY DAVIS -	1651	20th May 1868	Manufacture of artificial fuel.
HOSKOLD, HENRY DAVIS -	3511	19th Nov. 1868	Manufacture of artificial fuel.
HOTCHKISS, ALFRED - -	3987	31st Dec. 1868	Improvements in revolving fire-arms and in cartridges for the same and for other fire-arms. (Patented by William Edward Newton.)
HOTCHKISS, BENJAMIN B. -	519	17th Feb. 1868	Breech-loading fire-arms and cartridges. (Patented by Alexander Horace Brandon.)
HOUGHTON, JAMES BARNES -	3351	4th Nov. 1868	Holders for umbrellas, sticks and other articles.
HOUGHTON, WILLIAM - -	2653	26th Aug. 1868	Looms for weaving.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOUSTON, JAMES - - -	785	6th March 1868	Improvements in the manufacture of composite candles and in the machinery or apparatus employed therein.
HOWARD, GEORGE - - -	1882	9th June 1868	An improved manufacture of parquet flooring.
HOWARD, JAMES - - -	480	8th Feb. 1868	Construction of steam-boilers.
HOWARD, JAMES - - -	3468	14th Nov. 1868	Construction of tubular steam-boilers.
HOWARD, JOHN - - -	1399	29th April 1868	Machinery for nicking and dressing the heads of screw blanks. (Patented by Charles Douglas Fox.)
HOWARD, RICHARD - - -	676	28th Feb. 1868	Improvements applicable to taps and cocks for various useful purposes.
HOWCROFT, THOMAS - -	2739	5th Sept. 1868	Certain improvements in agricultural implements known as reaping and mowing machines.
HOWDEN, JAMES - - -	1938	13th June 1868	Steam or other motive-power engines.
HOWDEN, JAMES - - -	3035	5th Oct. 1868	Use and application of substances for preventing the escape of heat from the surfaces of cylinders, boilers and other vessels or apparatus containing heat.
HOWE, BENJAMIN PORTER -	2473	7th Aug. 1868	Sewing-machines. (Patented by Nahum Salamon.)
HOWELL, SAMUEL EARNSHAW	344	31st Jan. 1868	Suspension bridges.
HOWELL, WILLIAM - - -	920	18th March 1868	An improved manufacture of covering for floors. (Patented by Alfred Vincent Newton.)
HOWELL, WILLIAM - - -	1077	30th March 1868	Improvements in the treatment of cork and in the manufacture of a new compound or material therefrom, applicable to various useful purposes. (Patented by John Henry Johnson.)
HOWELL, WILLIAM - - -	1821	3rd June 1868	Decorating walls and other surfaces. (Patented by John Henry Johnson.)
HOWES, SIMON - - -	2567	17th Aug. 1868	Machinery or apparatus for cleaning grain. (Patented by John Henry Johnson.)
HOWES, WILLIAM HOWES -	3193	19th Oct. 1868	Movements or actions for swing-frame looking glasses, swing windows, show-case doors and other swing frames.
HOWLISON, JAMES - - -	3552	23rd Nov. 1868	New or improved movable sleeping berths for railway carriages, and arrangements and appliances connected therewith.
HOWORTH, JOHN - - -	76	8th Jan. 1868	Certain improvements in looms for weaving.
HOWSE, HENRY - - -	1309	22nd April 1868	An improvement in the manufacture of safety matches.
HUBBARD, CHARLES WHITE -	1231	14th April 1868	Improvements in saw handles and in securing the same to saw blades. (Patented by John Henry Johnson.)
HUBBARD, CHARLES WHITE -	3079	8th Oct. 1868	Improvements in saw handles and in securing the same to saw blades. (Patented by John Henry Johnson.)
HUBBELL, AUGUSTUS - - -	3671	2nd Dec. 1868	An improved reflector for oil and other lamps and burners. (Patented by Theodore Byron Hubbell.)
HUBBELL, AUGUSTUS - - -	3890	21st Dec. 1868	An improved construction of bandage to be used by females. (Patented by Theodore Byron Hubbell.)



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HUBBELL, THEODORE BYRON	3671	2nd Dec. 1868	An improved reflector for oil and other lamps and burners. (Communicated by Augustus Hubbell.)
HUBBELL, THEODORE BYRON	3690	21st Dec. 1868	An improved construction of bandage to be used by females. (Communicated by Augustus Hubbell.)
HUDDART, GEORGE AUGUSTUS	3605	26th Nov. 1868	Construction of railways.
HUDSON, CHARLES HENRY -	477	12th Feb. 1868	Revolving stands for culinary purposes. (Patented by Walter Greville Conyers Hudson.)
HUDSON, CHARLES HENRY -	2874	18th Sept. 1868	Certain improvements in washing apparatus.
HUDSON, CHARLES HENRY -	2875	18th Sept. 1868	Wringing machines. (Patented by Edward Thomas Hughes.)
HUDSON, FREDERIC - -	2699	1st Sept. 1868	Dry gas or liquid meters.
HUDSON, HERON - - -	3150	14th Oct. 1868	Improvements in facilitating the stopping of railway trains and other rolling stock, and in the machinery or apparatus employed therein.
HUDSON, ISAAC - - -	2801	11th Sept. 1868	Certain improvements in self-acting "tilts" for casks, barrels or other receptacles.
HUDSON, ISAAC - - -	3550	23rd Nov. 1868	An improved condenser for steam-engines.
HUDSON, JAMES - - -	134	15th Jan. 1868	Looms for weaving.
HUDSON, JAMES - - -	336	31st Jan. 1868	Machinery for turning and cutting wood and other substances.
HUDSON, WALTER GREVILLE [CONYERS.]	477	12th Feb. 1868	Revolving stands for culinary purposes. (Communicated by Charles Henry Hudson.)
HUDSON, WALTER GREVILLE [CONYERS.]	964	21st March 1868	A new or improved sandal or overshoe for preventing slipping in frosty weather and other uses.
HUET, ADRIEN - - -	3351	18th Dec. 1868	Means and apparatus for reducing the friction and assisting the flotation of vessels when passing through the water. (Patented by Edward Thomas Hughes.)
HUGAND, JOSEPH - - -	2938	24th Sept. 1868	Machinery for embroidering or ornamenting fabrics. (Patented by James Francis Wanner.)
HUGHAN, WILLIAM HENRY -	2683	19th Sept. 1868	Treatment of night soil, sewage and other like refuse matters, for the purpose of deodorising and converting the same into manure.
HUGHES, EDWARD JOSEPH -	3075	8th Oct. 1868	Improvements in recreative games played with balls and cues, and in the tables and apparatus connected therewith. (Communicated by John Moss Fletcher.)
HUGHES, EDWARD THOMAS -	621	25th Feb. 1868	Manufacture of hoop skirts. (Communicated by Thomas Barlock De Forest.)
HUGHES, EDWARD THOMAS -	1266	18th April 1868	Improvements in the manufacture of hats and bonnets and in the apparatus employed therein. (Communicated by Chauncey Orrin Crosby.)
HUGHES, EDWARD THOMAS -	2006	22nd June 1868	Machines for polishing needles. (Communicated by Chauncey Orrin Crosby.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HUGHES, EDWARD THOMAS -	2009	22nd June 1868	Metallic cartridges. (Communicated by Oliver Fisher Winchester.)
HUGHES, EDWARD THOMAS -	2186	10th July 1868	An improved wooden pavement. (Communicated by Zoeth Durfee.)
HUGHES, EDWARD THOMAS -	2312	23rd July 1868	Improvements in the mode of treating flax and in apparatus employed therein. (Communicated by Lewis McDonald Hills.)
HUGHES, EDWARD THOMAS -	2803	11th Sept. 1868	An improved mode of annealing gauze wire. (Communicated by Jean Delage and Alfred Boudinot.)
HUGHES, EDWARD THOMAS -	2875	18th Sept. 1868	Wringing machines. (Communicated by Charles Henry Hudson.)
HUGHES, EDWARD THOMAS -	2880	18th Sept. 1868	Apparatus for grinding, smoothing and polishing glass, marble and other similar substances. (Communicated by the Incorporated Society of Mirror and Glass Workers.)
HUGHES, EDWARD THOMAS -	2980	29th Sept. 1868	Gas-burners. (Communicated by Wilbur Fisk Parker.)
HUGHES, EDWARD THOMAS -	3080	7th Oct. 1868	Improved means and apparatus for generating electricity by heat. (Communicated by Louis Mure and Charles Clamond.)
HUGHES, EDWARD THOMAS -	3177	17th Oct. 1868	An improved adhesive substance. (Communicated by Jules Totin and Auguste Totin.)
HUGHES, EDWARD THOMAS -	3204	20th Oct. 1868	Tea and coffee pots. (Communicated by Edward Baldwin Manning.)
HUGHES, EDWARD THOMAS -	3208	20th Oct. 1868	Improvements in machines for polishing and finishing needles, and in apparatus for arranging the needles for delivery thereto. (Communicated by Chauncey Orrin Crosby.)
HUGHES, EDWARD THOMAS -	3349	4th Nov. 1868	Improvements in the manufacture of furred threads and furred fabrics, and in the machinery or apparatus connected therewith. (Communicated by François Vouillon.)
HUGHES, EDWARD THOMAS -	3551	23rd Nov. 1868	Presses for compressing and otherwise operating upon metal, hay, bricks, cotton and various other materials. (Communicated by Joseph Nottingham Smith and Henry Belcher Geer.)
HUGHES, EDWARD THOMAS -	3607	26th Nov. 1868	Means and apparatus for dressing, moulding and polishing stone, marble and other similar substances. (Communicated by François Bertrand.)
HUGHES, EDWARD THOMAS -	3851	18th Dec. 1868	Means and apparatus for reducing the friction and assisting the flotation of vessels when passing through the water. (Communicated by Adrien Huet.)
HUGHES, EDWARD THOMAS -	3852	18th Dec. 1868	Tea and coffee urns and other similar vessels. (Communicated by George Jones.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HUGHES, HENRY - - -	1061	27th March 1868	Locks and keys.
HUGHES, HESKETH - - -	1232	14th April 1868	Manufacture of "pipings" and "folds" or "plis" of satin or other material.
HUGHES, HESKETH - - -	2599	20th Aug. 1868	Improvements in sewing-machines, and in the manufacture thereby of trimmings and other work with threads, cords or wires.
HUGHES, JOHN EDWARD - - -	3158	15th Oct. 1868	Manufacture of water and drain pipes. (Patented by Alfred Robins.)
HUGHES, RICHARD - - -	1486	6th May 1868	Improvements applicable to the prevention of fraud in the collection of fares in omnibusses and other carriages, and in apparatus connected therewith.
HUGHES, RICHARD - - -	3962	30th Dec. 1868	Velocipedes.
HUGHES, THOMAS - - -	1368	25th April 1868	Supports for fire-irons.
HUGHES, THOMAS - - -	3962	30th Dec. 1868	Velocipedes.
HUGHES, WALTER WATSON - - -	1059	27th March 1868	Improvements in apparatus for propelling and steering vessels and in forcing water.
HUGHES, WALTER WATSON - - -	2496	10th Aug. 1868	Fans or apparatus for forcing or drawing air.
HULL, CHARLES CORNELIUS - - -	3792	14th Dec. 1868	Improved machinery for transmitting power and motion. (Patented by Henry Edward Newton.)
HULLETT, JOHN - - -	568	20th Feb. 1868	Aëronautical apparatus.
HULSE, WILLIAM - - -	899	17th March 1868	Improvements in the manufacture and ornamentation of metallic bedsteads and other articles of metallic furniture, a part of which improvements may also be applied to the ornamentation of metallic tubes and other metallic articles.
HUMES, JOHN JOSEPH REVE- [LEY.	1237	20th April 1868	Machinery for making bricks.
HUMFREY, CHARLES - - -	1932	13th June 1868	Preparation of a flexible compound applicable to waterproofing and other purposes.
HUMFREY, CHARLES - - -	1953	15th June 1868	Improvements in water-proofing paper and in the machinery or apparatus employed therein.
HUMPHREYS, HENRY TEMPLE	462	11th Feb. 1868	A new process for the decarbonization of molten iron for its conversion into steel, which process is also applicable for the decarbonization of other substances.
HUNT, BRISTOW - - -	2471	7th Aug. 1868	India-rubber fabrics. (Communicated by John Haskins.)
HUNT, BRISTOW - - -	2482	8th Aug. 1868	Blind furniture. (Communicated by Madame Anais Vion.)
HUNT, BRISTOW - - -	2494	10th Aug. 1868	An improved machine for making eyelets. (Communicated by James M. Osgood.)
HUNT, BRISTOW - - -	2562	17th Aug. 1868	Improvements in the mode of decomposing the sulphurets of iron contained in ores, coal, coke and other mineral products, and in apparatus therefor. (Communicated by Edmond Grandidier and Marcel Rue.)
HUNT, BRISTOW - - -	3189	19th Oct. 1868	An improvement in scissors. (Communicated by Sarah Hogan Brisbane.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HUNT, BRISTOW - - -	3351	24th Oct. 1868	Power capstans. (Communicated by David Newell Brown Coffin, junr., Thomas Hunter Johnston and Benjamin Woodward.)
HUNT, BRISTOW - - -	3359	5th Nov. 1868	An improved electrophysiological battery for application to the human body. (Communicated by Alfred Charles Garrett.)
HUNT, BRISTOW - - -	3398	9th Nov. 1868	An improved woven fabric. (Communicated by Antoine Gayet, the younger.)
HUNT, BRISTOW - - -	3577	25th Nov. 1868	Watches. (Communicated by Louis Auguste Etienne-Guyot.)
HUNT, BRISTOW - - -	3702	5th Dec. 1868	Wheels for railway carriages and other vehicles of like description. (Communicated by Bernhard Edlich.)
HUNT, BRISTOW - - -	3774	12th Dec. 1868	Method of and apparatus for evaporating and cooking. (Communicated by Jean François Cail.)
HUNT, CYRUS DEXTER - -	1406	29th April 1868	Machinery for the manufacture of cut nails. (Patented by Richard Heathfield.)
HUNT, EDMUND - - -	1707	25th May 1868	Improvements in obtaining motive-power and in apparatus therefor.
HUNT, GEORGE P. - - -	1257	17th April 1868	An improved mode of securing tubes in steam-boilers and other vessels. (Patented by Dillwyn Smith.)
HUNT, THOMAS - - -	1189	8th April 1868	Improvements in ordnance and in the mode of working the same.
HUNT, THOMAS - - -	2419	31st July 1868	Breech-loading fire-arms.
HUNT, WILLIAM - - -	759	5th March 1868	Improvements in treating certain compounds of copper and iron, and in utilizing residual products obtained in treating compounds of copper and iron.
HUNT, WILLIAM HENRY -	2500	11th Aug. 1868	Improvements in that class of market baskets known as Southport baskets.
HUNTER, JOHN MORRISON -	2466	6th Aug. 1868	Manufacture of boots and shoes. (Patented by Alfred Vincent Newton.)
HUNTER, JOHN MORRISON -	2680	29th Aug. 1868	Improved apparatus for effecting aerial locomotion.
HUNTER, ROBERT - - -	2355	27th July 1868	An improved propeller for steam vessels, canal boats and other vessels. (Patented by Alfred Vincent Newton.)
HUNTINGTON, SAMUEL WHITE [MORE.]	1212	11th April 1868	A new and useful mode of preparing or veneering paper, cloth, leather and other substances.
HUNTLEY, BENJAMIN RALPH -	997	24th March 1868	Improvements in ship's hatches and in ventilating the holds and cabins of ships.
HUNTLEY, BENJAMIN RALPH -	3200	20th Oct. 1868	Improvements in the hatches and cabin tops of ships, and for ventilating and other purposes.
HURCOURT, EDOUARD AR- [MAND D']	354	1st Feb. 1868	Improvements in the mode of utilizing and increasing the lighting power of gases and inflammable vapors, and in apparatus connected therewith. (Patented by Alexander Melville Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HURET, EUGENE - - -	2270	20th July 1868	Machinery for preparing, spinning and doubling cotton and other fibrous substances. (Patented by Henry Bernoulli Barlow.)
HURST, WILLIAM - - -	3353	5th Nov. 1868	Certain improvements in looms for weaving.
HUSBAND, RICHARD - - -	1876	9th June 1868	Certain improvements in the method of ventilating hats or other coverings for the head.
HUSBAND, WILLIAM - - -	1512	8th May 1868	An improved mode of and apparatus for securing or holding the stands or frames of rock-boring or excavating machines, part of which apparatus is applicable to connecting such machines with their stands or frames.
HUTCHESON, ARCHIBALD - - -	3966	30th Dec. 1868	A new or improved elevator.
HUTCHESON, JAMES - - -	3966	30th Dec. 1868	A new or improved elevator.
HUTCHINSON, ANDREW GEORGE	1646	20th May 1868	Apparatus for offering resistance to the opening of doors, windows and other moveable parts, and for giving alarms in cases of improper or burglarious attempts to open the same.
HUTCHINSON, CHARLES - - -	49	7th Jan. 1868	An improved liquid metre tap.
HUTCHINSON, EDWARD - - -	622	25th Feb. 1868	Construction of multiple drilling machines.
HUTCHINSON, EDWARD - - -	623	25th Feb. 1868	Construction of planing machines.
HUTCHINSON, WILLIAM NEL- [SON.	1357	25th April 1868	Apparatus for receiving and absorbing or checking the recoil of ordnance.
HUTTON, JOHN - - -	3685	3rd Dec. 1868	Lubricating apparatus and the application of the same to machinery.
HUZARSKI, ELIAS - - -	3598	25th Nov. 1868	Improved apparatus for threading domestic needles. (Patented by Elias Ellenband.)
HYATT, THADDEUS - - -	3928	23rd Dec. 1868	Treating cod liver oil and other oily or fatty matters to render them acceptable to the palate. (Patented by Alfred Vincent Newton.)
HYDE, FREDERICK - - -	1594	15th May 1868	Construction of bevel gearing.
HYDES, THOMAS - - -	293	28th Jan. 1868	Improved means or appliances for facilitating the transit and application of caloric, also for mixing caloric with air, water and other fluids and gases, also for economizing the consumption of fuel, consuming smoke, generating steam, and increasing and distributing heat, and for refrigerating purposes.
HYDES, THOMAS - - -	2363	28th July 1868	Improved means or appliances for facilitating the transit and application of caloric, also for mixing caloric with air, water and other fluids and gases, also for economizing the consumption of fuel, consuming smoke, generating steam, and increasing and distributing heat, and for refrigerating purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
<b>I.</b>			
IBBETT, WILLIAM HENRY -	3555	23rd Nov. 1868	Certain improvements in an apparatus for inducing motion in mobile substances or bodies, by the action of air and steam in combination. (Communicated by John Thibault Hancock.)
IBBOTSON, ALFRED BUCKING- [HAM.	418	7th Feb. 1868	Improved steel spring railway fastenings. (Communicated by Thomas Sexton Sarney.)
IBBOTSON, ALFRED BUCKING- [HAM.	2789	10th Sept. 1868	Railway fastenings. (Communicated by Honoré Demoor.)
IBOTSON, WILLIAM - -	3504	18th Nov. 1868	Improvements in operations and apparatus for drying down alkaline solutions of extractive matter obtained in preparing vegetable fibrous materials for use in the manufacture of paper, and in recovering alkali therefrom for re-employment.
ILES, CHARLES - - -	1564	13th May 1868	Manufacture and ornamenting of thimbles.
ILLINGWORTH, ALFRED - -	1141	4th April 1868	Means or apparatus employed in folding worsted or other yarns.
ILLINGWORTH, HENRY - -	1141	4th April 1868	Means or apparatus employed in folding worsted or other yarns.
ILWHAM, JAMES M <sup>c</sup> - -	1495	7th May 1868	Power looms.
IMBODEN, JOHN DANIEL -	2453	5th Aug. 1868	Manufacture of iron and steel. (Patented by Alfred Vincent Newton.)
IMHOF, DANIEL - - -	3860	18th Dec. 1868	Machinery of chimes applicable also to organs.
IMRAY, JOHN - - -	11	1st Jan. 1868	Locomotion.
IMRAY, JOHN - - -	1005	24th March 1868	Means and apparatus for effecting aerial locomotion.
IMRAY, JOHN - - -	3694	4th Dec. 1868	Rotary propellers, pumps and fans.
INGHAM, BENJAMIN - -	2535	13th Aug. 1868	Improved means of dyeing warps of worsted, cotton, silk or other fibrous substances.
INGHAM, CHARLES BARLOW -	1307	22nd April 1868	Certain improvements in apparatus for stamping, dating, indicating, cancelling or otherwise impressing or imprinting marks or designs. (Communicated by Edward Chamberlain.)
INGHAM, JOHN - - -	3623	28th Nov. 1868	Machinery or apparatus for dressing warps.
INGLIS, THOMAS - - -	3844	17th Dec. 1868	Construction of tubes or cylinders capable of resisting great internal pressure.
INGLIS, WILLIAM - - -	1659	20th May 1868	Steam-engines and boilers.
INGLIS, WILLIAM - - -	3546	23rd Nov. 1868	Improvements in steam-engines and in blowing engines.
INGRAM, JAMES GEORGE -	2223	14th July 1868	Caps for feeding bottles for infants and invalids.
INNES, GEORGE - - -	2892	19th Sept. 1868	Rifling machines.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
IRELAND, GEORGE - - -	113	11th Jan. 1868	Cruet frames, liquor frames and other frames for holding bottles and vessels and other articles.
IRELAND, WILLIAM CARLTON	307	29th Jan. 1868	Steam fireproof safes. (Patented by William Snell.)
IRMER, WILLIAM - - -	3378	6th Nov. 1868	A new (or improved) corn-flour jelly.
IRVINE, ROBERT - - -	3323	30th Oct. 1868	Production of alcoholic liquors.
IRWIN, JOHN HENRY - -	2979	29th Sept. 1868	Lamps and lanterns.
ISRAEL, LOUIS ASH - -	3404	10th Nov. 1868	Improvements in the mode of and machinery or apparatus for manufacturing sulphuric acid.
IVERS, JAMES - - -	2069	27th June 1868	A slip or apparatus for raising, placing or replacing on the line of rails or metals, engines, tenders, carriages, trucks or other conveyances used thereon.
IVERS, SAMUEL - - -	3535	20th Nov. 1868	Sewing needles. (Patented by Alfred Vincent Newton.)
IVOR, DUNCAN CAMPBELL MAC	1147	4th April 1868	Improvements in propelling ships and in the means or apparatus employed therefor.
IZOD, EDWIN - - -	20	2nd Jan. 1868	Improvements in the finishing of stays and in means or apparatus employed therein.

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JACK, ALEXANDER, the younger	1386	28th April 1868	Reaping-machines.
JACK, JAMES - - -	2044	25th June 1868	Improvements in applying auxiliary screw propellers to sailing ships, and in the construction of sailing ships to adapt them therefor.
JACKSON, ANDREW - -	1115	2nd April 1868	Braiding machines.
JACKSON, EDWARD BLASINI -	2350	27th July 1868	A new or improved material for the manufacture of bosses for flax spinning machinery.
JACKSON, EPHRAIM - -	2679	29th Aug. 1868	Certain improvements in mechanism or apparatus to be employed for preparing cotton and other fibrous substances.
JACKSON, JAMES - - -	1654	20th May 1868	Apparatus for imparting heat to the feet and body, whilst travelling or otherwise.
JACKSON, JAMES - - -	3519	19th Nov. 1868	Apparatus for imparting heat to the feet and body, whilst travelling or otherwise.
JACKSON, SAMUEL - -	1292	21st April 1868	Propelling and gaining motive-power.
JACKSON, WILLIAM MAXWELL	2660	27th Aug. 1868	Improvements in roofing tiles and in the method of keying or fastening together some of such tiles when being formed into a roof, and in the apparatus used in the manufacture of such tiles.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JACKSON, WILLIAM STIRLING	3761	10th Dec. 1868	An improved method of treating bones and the products obtained therefrom, so as to render them available for various useful purposes.
JACOBS, A. H. - - -	1566	13th May 1868	Braces or suspenders. (Patented by William Edward Newton.)
JACOBSON, NOAH - -	370	14th March 1868	A new self-acting letter-box for receipt and payment, provided with a controlling and signalizing apparatus.
JACOBUS, PETER NELSON -	2486	8th Aug. 1868	Screws and screw drivers. (Patented by William Edward Newton.)
JACQUEMARD, LÉON VICTOR -	3925	23rd Dec. 1868	An improved electric bell sounding and telegraphing apparatus for domestic use. (Patented by William Edward Gedge.)
JACQUET, FRANÇOIS ALPHONSE	146	16th Jan. 1868	Gas-heating and cooking apparatus. (Patented by Clinton Edgcumbe Brooman.)
JÄHNS, CARL JOHANN REIN- [HART.	2637	25th Aug. 1868	Apparatus for obtaining motive-power, and for registering the quantity or quantities of steam, water or other liquid, gases or vapours, and for pumping purposes.
JAMES, ARTHUR - - -	1514	8th May 1868	Machinery for polishing needles.
JAMES, CHARLES BARTLEET -	1055	27th March 1868	Securing and wrapping up needles.
JAMES, CHARLES BARTLEET -	3246	23rd Oct. 1868	Needle cases and wrappers.
JAMES, CHARLES BARTLEET -	3384	7th Nov. 1868	An improved winder for packing or putting up for sale, needles, pins, buttons, cotton, silk, thread, worsted or other sewing or embroidering materials, and in combining two or more of these articles in one packet.
JAMES, JOHN - - -	1181	8th April 1868	Manufacture of iron into semi-steel or steel.
JAMES, WILLIAM GEORGE -	3258	24th Oct. 1868	An improved mode of and apparatus for propelling ships or vessels and land carriages.
JAMESON, JOHN - - -	356	1st Feb. 1868	Improvements in the preparation of postage and other stamps, and in the obliteration of the same.
JAMESON, JOHN - - -	1023	25th March 1868	Preparation of safety paper.
JAQUES, JAMES ARCHIBALD -	1289	20th April 1868	Manufacture of elastic bands.
JAQUES, JAMES ARCHIBALD -	1296	21st April 1868	Improved machinery or apparatus for producing thin strips or filaments from various substances.
JAQUET, JOHN LEWIS - -	632	25th Feb. 1868	Heels for boots and shoes. (Communicated by George Beatty.)
JARDRY, CONSTANT - -	2778	9th Sept. 1868	Improved means of instantaneously opening envelopes and of attaching them to the letters they contained. (Patented by Alexander Melville Clark.)
JARRE, PIERRE GABRIEL -	3894	21st Dec. 1868	A hydro-pneumatic pump.
JARVIE, NEDRICK - - -	2895	19th Sept. 1868	Apparatus for the manufacture of oakum, tow and similar materials.
JARVIS, WILLIAM - - -	3096	9th Oct. 1868	Improved label attachments for poison bottles and bottles containing dangerous substances.
JAU, EDOUARD - - -	2978	29th Sept. 1868	Machinery or apparatus applicable for raising and lowering weights, hauling and other purposes. (Patented by Alexander Melville Clark.)



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JAY, LOUIS JOSEPH - -	2809	11th Sept. 1868	Improvements in apparatus for weighing, and also in cranes or lifting apparatus combined with weighing apparatus. (Patented by Michael Henry.)
JEAN, GASTON MARCELIN DE	3842	30th Nov. 1868	A new or improved material for the manufacture of tiles for roofing purposes. (Patented by Alexander Melville Clark.)
JEANDRON-FERRY, LOUIS [DESIRÉ.	1181	6th April 1868	Bathing shoes. (Patented by Alfred Vincent Newton.)
JEAVONS, JOSHUA - - -	805	9th March 1868	Manufacture of tyres for railway and other wheels.
JEAVONS, JOSHUA - - -	1148	4th April 1868	Manufacture of piles of iron or steel, or of iron and steel, for the manufacture of rails, angles, axles, tyres, shafts and other articles.
JEAVONS, JOSHUA - - -	2834	25th Aug. 1868	Manufacture of iron for plating vessels and fortifications, and the fastenings connected therewith.
JEFFERIES, SAMUEL - - -	737	4th March 1868	Improvements in and apparatus for securing, adjusting and arranging cords, ropes and chains employed for raising and lowering venetian blinds, curtains, windows, shutters and other analogous purposes.
JEFFERYS, JOHN - - -	2189	10th July 1868	Studs and buttons.
JEFFREYS, JULIUS - - -	2384	29th July 1868	Preserving animal and vegetable substances.
JEFFREYS, JULIUS - - -	3052	6th Oct. 1868	Improvements in freezing, shipping and preserving meat and other provisions, and in the machinery and apparatus employed therefor.
JENKINS, EDWARD - - -	2421	1st Aug. 1868	Closing cans, barrels, kegs and other similar receptacles. (Patented by Charles Joseph Lindsay Nicholson.)
JENKINS, FREDRICK - - -	3020	2nd Oct. 1868	Improvements in the construction of sleeve links, the same being also applicable to other articles of jewellery.
JENKINS, JAMES - - -	3020	2nd Oct. 1868	Improvements in the construction of sleeve links, the same being also applicable to other articles of jewellery.
JENKINS, JOHN HENRY - -	1726	26th May 1868	An improvement in screw propellers.
JENKINS, SAMUEL - - -	3020	2nd Oct. 1868	Improvements in the construction of sleeve links, the same being also applicable to other articles of jewellery.
JENNINGS, JOSIAH GEORGE -	968	21st March 1868	Improvements in waterclosets and in apparatus for supplying water, and in sewers or drains for receiving the same.
JENNINGS, JOSIAH GEORGE -	3914	22nd Dec. 1868	Apparatus for treating sewage and for irrigating land with sewage and other waters.
JENNINGS, WILLIAM JOHN -	251	24th Jan. 1868	Permanent way of railways.
JENSEN, JOHANNES - - -	3902	22nd Dec. 1868	Reefing and unreefing the mainsail and jib of vessels.
JENSEN, PETER - - -	2143	6th July 1868	Sewing-machines. (Communicated by Heinrich Pollack and Albert Edwin Schmidt.)
JESSOP, GEORGE - - -	448	10th Feb. 1868	Machinery for preparing wool and other fibrous substances for spinning, commonly known as the "condenser carder."

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JEWITT, HENRY - -	2083	29th June 1868	A new toy in the shape of a mortar or spring gun. (Communicated by William Rose.)
JEWITT, HENRY - -	2833	15th Sept. 1868	A new toy representing game-cocks or other birds or animals in the act of fighting. (Communicated by William W. Rose.)
JEWITT, HENRY - -	2990	30th Sept. 1868	Means and apparatus for playing a new game. (Communicated by William W. Rose.)
JEWITT, HENRY - -	3355	5th Nov. 1868	Slabs or blocks for erecting toy houses and other buildings. (Communicated by William W. Rose.)
JOBARD, FRANÇOIS - -	1331	23rd April 1868	Apparatus for transmitting and multiplying motive-power. (Patented by Alexander Melville Clark.)
JOBSON, EDWARD - -	2703	1st Sept. 1868	Pianofortes.
JOBSON, JOHN - -	510	15th Feb. 1868	Improved apparatus for separating the solid and watery particles of slop and sewage.
JOHANNSON, CHARLES - -	2300	22nd July 1868	A new method of and new apparatus for raising, moving, transferring and discharging water or other fluids. (Patented by Charles Forster Waldo.)
JOHNSON, BRYAN - -	3342	3rd Nov. 1868	New or improved torsion springs. (Communicated by Joseph Ellicott Holmes.)
JOHNSON, CHARLES - -	3021	23rd June 1868	Boilers for heating and circulating water and other liquids and generating steam.
JOHNSON, CUTHBERT GREEN- [WOOD.	2263	18th July 1868	Kilns and apparatus for drying and burning bricks and other articles.
JOHNSON, CUTHBERT GREEN- [WOOD.	2450	4th Aug. 1868	Machinery for making bricks and other moulded blocks.
JOHNSON, CUTHBERT GREEN- [WOOD.	2511	12th Aug. 1868	Manufacture of iron and steel.
JOHNSON, EDWARD DANIEL -	959	21st March 1868	Construction of pocket watches.
JOHNSON, ELLEN - -	2773	8th Sept. 1868	Manufacture or ornamentation of muffs, cuffs and collars.
JOHNSON, GEORGE - -	3004	30th Sept. 1868	Manufacture of rouge and polishing powders.
JOHNSON, HENRY HILDITCH -	1641	20th May 1868	An improved mode of advertising in railway tunnels and cuttings.
JOHNSON, JAMES - -	563	20th Feb. 1868	Certain improvements in apparatus to be employed for lubricating revolving shafts or axles.
JOHNSON, JOHN - -	1250	16th April 1868	Improvements in heating and ventilating and in apparatus employed therein. (Patented by John Henry Johnson.)
JOHNSON, JOHN - -	1303	22nd April 1868	Metallic packings for pistons, pump buckets and valves.
JOHNSON, JOHN - -	3291	27th Oct. 1868	Apparatus applicable to window-frames for raising or lowering sashes and shutters.
JOHNSON, JOHN HENRY -	111	11th Jan. 1868	Pipes for smoking. (Communicated by Thomas Monroe Hammond.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY -	200	20th Jan. 1868	Improvements in ships for containing and transporting oils or burning fluids, also in raising such oils or burning fluids and supplying the same as fuel to the furnaces of steam ships, parts of which improvements are applicable to the ballasting of ships with water. (Communicated by John Henry Smith and Ellbridge Gerry Benedict.)
JOHNSON, JOHN HENRY -	214	21st Jan. 1868	Apparatus for indicating the relative positions and movements of certain of the heavenly bodies. (Communicated by John Davis.)
JOHNSON, JOHN HENRY -	215	21st Jan. 1868	Furnaces. (Communicated by Henderson Ross.)
JOHNSON, JOHN HENRY -	271	25th Jan. 1868	Apparatus for melting and heating metals and other substances. (Communicated by Adolphe Perrot.)
JOHNSON, JOHN HENRY -	301	28th Jan. 1868	Lithographic printing machines. (Communicated by Pierre Alauzet.)
JOHNSON, JOHN HENRY -	318	29th Jan. 1868	Disintegrating, scouring and cleansing raw wool and woollen fabrics. (Communicated by Charles Mennier.)
JOHNSON, JOHN HENRY -	337	31st Jan. 1868	Steam-engines. (Communicated by Edward Nicoll Dickerson.)
JOHNSON, JOHN HENRY -	364	3rd Feb. 1868	Treatment of bones. (Communicated by Francois Coignet.)
JOHNSON, JOHN HENRY -	371	4th Feb. 1868	Treatment of compressed or embossed wood. (Communicated by Samuel Betton Henry.)
JOHNSON, JOHN HENRY -	567	20th Feb. 1868	Improved means for increasing the draught in steam-boiler and other furnaces or fire-places. (Communicated by Jearum Atkins.)
JOHNSON, JOHN HENRY -	894	16th March 1868	Improvements in the manufacture of wheels for vehicles, and in the machinery or apparatus employed therein. (Communicated by Auguste Colas.)
JOHNSON, JOHN HENRY -	1043	26th March 1868	Lamps for burning liquid hydrocarbons. (Communicated by Robert Wallace Park, John Charles Love and William Henry Love.)
JOHNSON, JOHN HENRY -	1076	30th March 1868	Improvements in the manufacture of cast steel and malleable iron from cast iron, and in the apparatus or means employed therein. (Communicated by Francis Ellershausen.)
JOHNSON, JOHN HENRY -	1077	30th March 1868	Improvements in the treatment of cork and in the manufacture of a new compound or material therefrom, applicable to various useful purposes. (Communicated by Henry Hauer and William Howell.)
JOHNSON, JOHN HENRY -	1078	30th March 1868	Improvements in the manufacture of cast steel and in furnaces to be employed therein, which furnaces are also applicable to the re-melting of metals generally. (Communicated by Francis Ellershausen.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY -	1096	31st March 1868	Sewing-machines. (Communicated by George Rehfsuss.)
JOHNSON, JOHN HENRY -	1130	3rd April 1868	Improvements in the manufacture of cast steel and malleable iron from cast iron, and in the apparatus or means employed therein. (Communicated by Francis Ellershausen.)
JOHNSON, JOHN HENRY -	1231	14th April 1868	Improvements in saw handles and in securing the same to saw blades. (Communicated by Charles White Hubbard.)
JOHNSON, JOHN HENRY -	1250	16th April 1868	Improvements in heating and ventilating and in apparatus employed therein. (Communicated by John Johnson.)
JOHNSON, JOHN HENRY -	1300	21st April 1868	An improved mode or method of correcting the deviations of the mariner's compass in iron ships. (Communicated by Louis François Alexandre Arson.)
JOHNSON, JOHN HENRY -	1405	29th April 1868	Preserving meat and other animal matters. (Communicated by Charles Edward Richardson and George Thatcher Waterman.)
JOHNSON, JOHN HENRY -	1422	30th April 1868	Manufacture of gelatine. (Communicated by François Coignet.)
JOHNSON, JOHN HENRY -	1431	1st May 1868	Machinery or apparatus for burling and shearing textile fabrics. (Communicated by Amédée François Legrand, Ferdinand Martinot, Benjamin Martinot, Auguste Holma and Jean Baptiste Génét.)
JOHNSON, JOHN HENRY -	1443	2nd May 1868	Improvements in apparatus for exhibiting minute photographic pictures, and in pictures or slides to be used therewith. (Communicated by the Incorporated Company Langlois and Company.)
JOHNSON, JOHN HENRY -	1494	6th May 1868	Improved means for increasing the draught in steam-boiler and other furnaces or fire-places. (Communicated by Jearum Atkins.)
JOHNSON, JOHN HENRY -	1504	7th May 1868	Sewing-machines. (Communicated by Leonard Erni.)
JOHNSON, JOHN HENRY -	1591	15th May 1868	Improvements in the manufacture of hollow bricks or blocks to be used for the floors, ceilings and other parts of buildings, and in apparatus for moulding or manufacturing the same. (Communicated by François Louis Sabroul.)
JOHNSON, JOHN HENRY -	1592	15th May 1868	Improvements in frames or holders for containing photographs, miniatures, hairwork pictures or engravings and other like articles, and in apparatus or means employed in their manufacture. (Communicated by Joseph François Antoine Aubriot-Roussaux and Lucien Vincent.)
JOHNSON, JOHN HENRY -	1816	3rd June 1868	Pipe joints. (Communicated by John Frothingham Ward and Alfred Wingate Craven.)
JOHNSON, JOHN HENRY -	1817	3rd June 1868	Railway trucks or vehicles. (Communicated by David M'Farland.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY -	1821	3rd June 1868	Decorating walls and other surfaces. (Communicated by William Howell.)
JOHNSON, JOHN HENRY -	1885	9th June 1868	Treatment of oxide of iron with a view to its use in blast furnaces. (Communicated by Ernest Deligny.)
JOHNSON, JOHN HENRY -	1919	12th June 1868	Miner's safety cages, lifts and other like hoisting apparatus. (Communicated by John Vaughan Merrick and William Henry Merrick.)
JOHNSON, JOHN HENRY -	1952	15th June 1868	Construction of zincing baths. (Communicated by Frederick Adam Kraft and Frederic Chase.)
JOHNSON, JOHN HENRY -	2017	22nd June 1868	Production of a red color for dyeing and printing. (Communicated by Louis Durand.)
JOHNSON, JOHN HENRY -	2122	2nd July 1868	Improvements in shoes for horses and other animals, and in the method of securing the same to the hoof. (Communicated by François Lebacqz.)
JOHNSON, JOHN HENRY -	2123	2nd July 1868	Construction of bridges. (Communicated by Rufus Spaulding Merrill.)
JOHNSON, JOHN HENRY -	2126	3rd July 1868	Machinery or apparatus for the manufacture of paper pulp. (Communicated by the Incorporated Company "Debré and Grange" and Paul Pasquier.)
JOHNSON, JOHN HENRY -	2184	9th July 1868	A new musical instrument, parts of which are applicable to other musical instruments. (Communicated by Claude Gavioli.)
JOHNSON, JOHN HENRY -	2232	15th July 1868	Lamps. (Communicated by Madame Marie Chaussy.)
JOHNSON, JOHN HENRY -	2296	22nd July 1868	Production of a red coloring matter. (Communicated by Alexander Clavel.)
JOHNSON, JOHN HENRY -	2334	24th July 1868	Improvements in the manufacture of cast and wrought iron and steel, and in the furnaces employed therefor. (Communicated by Auguste Ponsard and François Eugène Boyenval.)
JOHNSON, JOHN HENRY -	2395	30th July 1868	An improved flame spreader and aerator for gas and other burners. (Communicated by Joseph Spangler Machir.)
JOHNSON, JOHN HENRY -	2506	11th Aug. 1868	Permanent way of railways. (Communicated by Jean Baptiste Antoine Maurice.)
JOHNSON, JOHN HENRY -	2567	17th Aug. 1868	Machinery or apparatus for cleaning grain. (Communicated by Simon Howes and Alphas Babcock.)
JOHNSON, JOHN HENRY -	2605	21st Aug. 1868	Machinery or apparatus employed in manufacturing wheat and other grain into flour. (Communicated by Henry Beaufort Sears.)
JOHNSON, JOHN HENRY -	2644	25th Aug. 1868	Improvements in condensing the vapour of water and other liquids, and in the apparatus employed therein. (Communicated by Placide Neseraus.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY -	2725	4th Sept. 1868	Preparation of a blue color from aniline. (Communicated by Pierre Blumer Zweifel.)
JOHNSON, JOHN HENRY -	2869	17th Sept. 1868	Improvements in the combustion of liquid fuel and in the furnaces and apparatus employed therein. (Communicated by Clement Sauvage.)
JOHNSON, JOHN HENRY -	2870	17th Sept. 1868	An improved mode of advertising and improved envelopes to be used therein. (Communicated by Noel Auguste Sustrac.)
JOHNSON, JOHN HENRY -	2898	19th Sept. 1868	Machinery or apparatus for lighting and regulating the flow of gas employed for illuminating purposes. (Communicated by Arthur Barbarin.)
JOHNSON, JOHN HENRY -	2954	26th Sept. 1868	Permanent way of railways. (Communicated by Russell Aitken.)
JOHNSON, JOHN HENRY -	2998	30th Sept. 1868	Improvements in the manufacture of white lead, and in the production of carbonic acid gas for the said manufacture and for other useful purposes. (Communicated by Henry Hannen, Benjamin Franklin Pine and Thomas Woods.)
JOHNSON, JOHN HENRY -	3055	7th Oct. 1868	An improved textile fabric applicable as blankets for printing presses and for other useful purposes. (Communicated by Jean Louis Delégue.)
JOHNSON, JOHN HENRY -	3058	7th Oct. 1868	Flyers employed in twisting or spinning cotton and other fibrous substances. (Communicated by John Whittin.)
JOHNSON, JOHN HENRY -	3079	8th Oct. 1868	Improvements in saw handles and in securing the same to saw blades. (Communicated by Charles White Hubbard.)
JOHNSON, JOHN HENRY -	3211	20th Oct. 1868	Boots and shoes. (Communicated by Edwin Thomas.)
JOHNSON, JOHN HENRY -	3221	21st Oct. 1868	Reels or bobbins. (Communicated by François Patureau.)
JOHNSON, JOHN HENRY -	3368	6th Nov. 1868	Improvements in the treatment of carbonate of lime for the preparation of pigments therefrom, and in the apparatus employed therein. (Communicated by Charles Jules de Bras de Fer.)
JOHNSON, JOHN HENRY -	3387	7th Nov. 1868	Machinery or apparatus for cutting screw threads. (Communicated by Paul Henri Ferdinand De Résener.)
JOHNSON, JOHN HENRY -	3407	10th Nov. 1868	A mode of and means for utilizing the waste heat of furnaces employed in the manufacture of coal gas. (Communicated by Louis Coignard.)
JOHNSON, JOHN HENRY -	3472	14th Nov. 1868	Railway wheels. (Communicated by George Granville Lobdell.)
JOHNSON, JOHN HENRY -	3567	24th Nov. 1868	Safety tackle for raising and lowering heavy weights. (Communicated by Benjamin Bellair.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY - -	3651	30th Nov. 1868	Producing imitations of and substitutes for wood, ivory, stone and other hard substances. (Communicated by David Blake.)
JOHNSON, JOHN HENRY - -	3658	1st Dec. 1868	Carding-engines. (Communicated by Jean Alexandre Edmond Pasquier.)
JOHNSON, JOHN HENRY - -	3691	4th Dec. 1868	A new mode of and apparatus for treating diseases. (Communicated by Maurice Howell Uley.)
JOHNSON, JOHN HENRY - -	3891	21st Dec. 1868	Improvements in sharpening and setting saws, and in the machinery or apparatus employed therein. (Communicated by Charles Aimé Perrey.)
JOHNSON, JOHN HENRY - -	3906	22nd Dec. 1868	Machinery or apparatus for the manufacture of sheaves or pulleys for hoisting and hauling tackle. (Communicated by Eugène Damien and Joseph Kister.)
JOHNSON, JOHN HENRY - -	3924	23rd Dec. 1868	Construction of plates for holding artificial teeth. (Communicated by Edward Brigham Goodall.)
JOHNSON, JOHN HENRY - -	3932	24th Dec. 1868	Preparation and apparatus for transmission of electric telegraphic despatches. (Communicated by Henri Gensoul.)
JOHNSON, JOHN HENRY - -	3963	30th Dec. 1868	Improvements in the manufacture of paper tubes employed in the spinning of wool and other fibrous substances, and in the machinery or apparatus employed therein. (Communicated by Mathias Schaffhauser.)
JOHNSON, JOHN ROBERT - -	1344	24th April 1868	Repeating fire-arms.
JOHNSON, MATTHEW WARTON	1716	25th May 1868	Manufacture of sheets of lead or tin, or alloys or compounds of these metals.
JOHNSON, ROBERT - -	1716	25th May 1868	Manufacture of sheets of lead or tin, or alloys or compounds of these metals.
JOHNSON, SHERMAN MINOR -	3596	25th Nov. 1868	Improvements in sad-irons and in the means for heating the same. (Patented by William Robert Lake.)
JOHNSON, THOMAS - -	731	3rd March 1868	Improvements in treating ores to obtain copper therefrom, and in evaporating brine.
JOHNSON, WILLIAM - -	1138	4th April 1868	New or improved machinery for compressing and moulding coal, peat, clay and other plastic materials.
JOHNSON, WILLIAM WHITTLE	1716	25th May 1868	Manufacture of sheets of lead or tin, or alloys or compounds of these metals.
JOHNSTON, THOMAS HUNTER	3251	24th Oct. 1868	Power capstans. (Patented by Bristow Hunt.)
JOLLEY, WILLIAM - -	1621	18th May 1868	Improvements in apparatus for conveying and regulating the pressure of steam passing through pipes or other vessels, and taking off condensed water from the same. (Partly communicated by Bernard August Schaeffer and Christian Frederick Budenberg.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JONES, AUGUSTUS - - -	2839	15th Sept. 1868	An improved machine for hulling and cleaning or polishing coffee, rice and other grain. (Patented by George Davies.)
JONES, CHARLES - - -	1061	27th March 1868	Locks and keys.
JONES, CHARLES - - -	3457	13th Nov. 1868	Treatment of sewage.
JONES, DAVID - - -	267	25th Jan. 1868	Apparatus for producing optical illusions.
JONES, DAVID - - -	1654	20th May 1868	Apparatus for imparting heat to the feet and body, whilst travelling or otherwise.
JONES, DAVID - - -	1796	1st June 1868	Improvements in furnaces and heating apparatus, having reference to the consumption or prevention of smoke.
JONES, DAVID - - -	2728	4th Sept. 1868	A new or improved stand or support for umbrellas, parasols, sticks and other articles.
JONES, DAVID - - -	3519	19th Nov. 1868	Apparatus for imparting heat to the feet and body, whilst travelling or otherwise.
JONES, EDWIN - - -	1695	23rd May 1868	Improved shadowless lamps. (Communicated by Peter Langwill and Matthew Craig.)
JONES, GEORGE - - -	3852	18th Dec. 1868	Tea and coffee urns and other similar vessels. (Patented by Edward Thomas Hughes.)
JONES, HENRY, junr. - -	1057	27th March 1868	Whist counters.
JONES, JAMES - - -	823	10th March 1868	Finishing, straightening and punching rolled railway and other bars of iron and steel.
JONES, JAMES - - -	2761	8th Sept. 1868	Arrangement and construction of furnaces and apparatus employed in the processes of heating, rolling, straightening, punching and finishing railway and other bars or forms of iron and steel.
JONES, JAMES GRAFTON -	557	19th Feb. 1868	Machinery for exhausting air suitable to be used for ventilating mines and for other similar purposes.
JONES, JAMES GRAFTON -	1058	27th March 1868	Apparatus for hauling minerals in mines, and for raising water from mines and other places.
JONES, JAMES GRAFTON -	3145	14th Oct. 1868	Apparatus employed in getting coal, stone and minerals.
JONES, JEROME VALENTINE -	350	1st Feb. 1868	Improvements in the manufacture of metallic tubes and in machinery used in the manufacture of metallic tubes.
JONES, JEROME VALENTINE -	1131	3rd April 1868	Manufacture of ornamental metallic tubes.
JONES, JOHN - - -	3275	26th Oct. 1868	Means and apparatus for breaking down coal, stone and other minerals.
JONES, JOHN - - -	3488	17th Nov. 1868	Apparatus for breaking down coal, slate, stone and other minerals.
JONES, JOHN ALLCOCK - -	149	16th Jan. 1868	Manufacture of iron and steel.
JONES, JOHN ALLCOCK - -	397	5th Feb. 1868	Production of iron and steel.
JONES, JOHN ALLCOCK - -	1516	8th May 1868	Manufacture of iron and steel.
JONES, JOSEPH - - -	2868	17th Sept. 1868	Certain improvements in furnaces applicable to boilers for generating steam or other purposes.
JONES, JOSEPH - - -	3871	19th Dec. 1868	Drawing off the vapours from baths employed in coating metals.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JONES, JOSHUA - - -	2961	26th Sept. 1868	Improvements in the manufacture of paste and card board and in apparatus employed therein, which apparatus is also applicable to other purposes.
JONES, RALPH AUGUSTINE -	372	4th Feb. 1868	An improved warming and ventilating vessel or apparatus applicable to stoves and other heat suppliers.
JONES, RICHARD LIONEL -	1583	14th May 1868	An improved hand signal lamp.
JONES, ROBERT JOHN - -	390	5th Feb. 1868	Machinery for manufacturing clog soles, clog blocks, patten boards and similar articles, and cutting welts.
JONES, THOMAS - - -	1181	8th April 1868	Manufacture of iron into semi-steel or steel.
JONES, THOMAS - - -	2868	17th Sept. 1868	Certain improvements in furnaces applicable to boilers for generating steam or other purposes.
JONES, WILLIAM - - -	563	20th Feb. 1868	Certain improvements in apparatus to be employed for lubricating revolving shafts or axles.
JONES, WRIGHT - - -	1640	20th May 1868	Machinery for stretching woven fabrics.
JONES, WRIGHT - - -	3372	6th Nov. 1868	Machinery for [beetling woven fabrics and other materials.
JONTE, FREDERIC PIERRE -	363	3rd Feb. 1868	Combined photographic apparatus for outdoor operations.
JORDAN, JOHN - - -	1085	30th March 1868	Construction of fire-bars for furnaces.
JORDAN, THOMAS BROWN -	3123	12th Oct. 1868	Machinery and apparatus for breaking, separating and dressing mineral substances.
JOSEPH, LIONEL BARNET -	560	19th Feb. 1868	Carriage and other wheels and tyres.
JOSEPHI, HENRY - - -	3070	8th Oct. 1868	Watches, clocks and other like time-pieces, time-keepers or time indicators.
JOURDEUIL, NICOLAS - -	449	10th Feb. 1868	Combined pen and ink holders or fountain pen holders. (Patented by Clinton Edgcumbe Brooman.)
JOYCE, JOHN BARNETT - -	3037	5th Oct. 1868	Improvements in or applicable to the valves of steam-engines, part of which improvements is applicable to couplings of shafting and to other similar purposes.
JOYNER, CHARLES - - -	1066	28th March 1868	Water-slide gaseliers.
JOYNER, JAMES ALBERT -	1726	26th May 1868	An improvement in screw propellers.
JOYNSON, JOSEPH - - -	2751	7th Sept. 1868	Certain improvements in that portion of ladies' wearing-apparel termed muffs.
JUDD, SAMUEL, the younger -	2202	13th July 1868	A new syringe to be used or applied in combination with combs, brushes and other similar articles.
JUGE, VICTOR - - -	2991	30th Sept. 1868	Means and apparatus for propelling, steering and turning ships and other vessels, and raising the same when stranded.
JULIAN, H. G. - - -	123	14th Jan. 1868	An improved spirit level. (Patented by Charles William Lewis.)
JUSTICE, PHILIP - - -	3892	21st Dec. 1868	A spring paul washer. (Patented by Henry Woodcroft Hammond.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JUSTICE, PHILIP SYNG - -	3230	22nd Oct. 1868	An improved engine for raising and forcing water. (Patented by Marc Antoine François Mennons.)
K.			
KANE, ANDREW - - -	2125	3rd July 1868	Apparatus to be used for the manufacture of tobacco pipes.
KAULBACH, EDWARD REIN- [HOLD.]	1983	19th June 1868	A new and improved rotary engine.
KAY, ALBERT - - -	1245	16th April 1868	Manufacture of paper.
KAY, THOMAS BISPHAM - -	173	18th Jan. 1868	Certain improvements in carding-engines to be employed for carding cotton and other fibrous materials.
KAY, THOMAS BISPHAM - -	1575	14th May 1868	Certain improvements in carding-engines to be employed for carding cotton and other fibrous substances.
KEAN, JAMES ASBURY M <sup>c</sup> -	1183	8th April 1868	Machinery for cutting and working rocks and other hard substances, chiefly designed for mining, tunnelling and other like operations. (Patented by William Robert Lake.)
KEAN, JAMES ASBURY M <sup>c</sup> -	2422	1st Aug. 1868	Machinery for manufacturing metallic eye-lets. (Communicated by William Rudolphus Landfear.)
KEAN, JAMES ASBURY M <sup>c</sup> -	3876	21st Dec. 1868	Machinery for cutting and working rocks and other hard substances, chiefly designed for mining, tunnelling and other like operations. (Patented by William Robert Lake.)
KEAN, JOHN M <sup>c</sup> - - -	1402	29th April 1868	Manufacture or preparation of materials for sizing or dressing yarns and textile fabrics.
KEAN, PHILIP - - -	2045	25th Sept. 1868	Apparatus used for dyeing textile fabrics.
KEARSLEY, GEORGE - - -	1748	27th May 1868	Mowing and reaping machines.
KEARSLEY, HENRY - - -	1748	27th May 1868	Mowing and reaping machines.
KEARSLEY, JAMES - - -	1490	6th May 1868	Improvements in means or arrangements for making observations on railways for the purpose of preventing accidents, and in signalling or communicating between one part of a railway train and another.
KEEBLE, WALTER - - -	509	20th Feb. 1868	Preparation of cigars.
KEEBLE, WALTER - - -	946	20th March 1868	Preparation of cigars and mode of lighting the same.
KEHDE, HENRY ADOLPHE -	3498	17th Nov. 1868	Apparatus for working railway signals, points and switches.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KEIGHLEY, ARTHUR MONTA- [GUE.	538	18th Feb. 1868	Method of and means or apparatus for signalling from one part of a railway train to another.
KEITH, SAMUEL - - -	1782	30th May 1868	Improvements in weaving and in the machinery or apparatus employed therefor.
KELLEN, ROBERT DUNSEITH [Mc	388	5th Feb. 1868	Certain improvements in machinery or apparatus to be employed in the manufacture of cotton and other balls.
KELLER, GEORGE - - -	514	15th Feb. 1868	Carriages. (Patented by Jonathan Barlow.)
KELLOGG, GEORGE - - -	278	27th Jan. 1868	Improvements in hats, bonnets and other coverings for the head, and in machinery for manufacturing the same. (Communicated by Henry Kellogg.)
KELLOGG, HENRY - - -	278	27th Jan. 1868	Improvements in hats, bonnets and other coverings for the head, and in machinery for manufacturing the same. (Patented by George Kellogg.)
KELLOW, JOSEPH - - -	3443	12th Nov. 1868	Machinery for cutting rock, stone and minerals.
KELLY, RICHARD ROPER -	2856	16th Sept. 1868	A new manufacture of pigments.
KELSON, CHARLES - - -	3302	28th Oct. 1868	Horse collars. (Communicated by Charles Kimball Marshall.)
KEMP, EBENEZER - - -	1204	21st April 1868	Marine steam-engines.
KENDALL, HENRY JOHN [BROUGHTON.	2023	23rd Sept. 1868	A new or improved preservative paint or composition for protecting ships' bottoms, preserving submarine wood-work and other useful purposes. (Communicated by William F. Babcock.)
KENDRICK, THOMAS - - -	1951	15th June 1868	An improved ornamentation of fenders and other useful and ornamental articles ordinarily used in connection therewith.
KENDRICK, THOMAS - - -	2262	18th July 1868	Improvements in fire-irons, part of which invention is applicable to fenders to stove grates and other fire-places.
KENNAN, THOMAS - - -	3725	7th Dec. 1868	Improvements in fences and in latches or fastenings for the gates of the same, which are applicable also as fastenings for other purposes.
KENNEDY, HUGH - - -	729	3rd March 1868	An improved machine for cutting files.
KENNETT, JOHN - - -	1642	20th May 1868	An improved method of ventilating sewers.
KENNY, PATRICK - - -	575	20th Feb. 1868	An improved method and apparatus for singeing off the hairs, bristles and other matters on pigs, in order to prepare them for being converted into bacon.
KENT, GEORGE - - -	1469	5th May 1868	Ice preservers, refrigerators and ice safes.
KENT, JOHN THOMAS - - -	630	25th Feb. 1868	Manufacture of mattresses.
KENT, WILLIAM HARDY -	1715	25th May 1868	Machinery for fluting, crimping and puffing fabrics. (Communicated by George Edwin King.)
KENWORTHY, WILLIAM ED- [WARD.	78	8th Jan. 1868	An improved method of purifying drains and sewers.
KENYON, THOMAS, the younger	2491	10th Aug. 1868	Manufacture of sulphuric acid.
KER, GEORGE - - -	2668	28th Aug. 1868	Improved mechanism or apparatus for cleaning gloves and other articles and fabrics.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[Kin]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KERNEY, ABRAHAM - -	1857	6th June 1868	Improved machinery or apparatus for treating or preparing spun or twisted silk-waste for dressing or combing.
KERR, ROBERT - - -	636	25th Feb. 1868	Method of and apparatus for heating conservatories and other similar houses or structures.
KERR, THOMAS - - -	2169	8th July 1868	Fire-arms.
KERSHAW, HENRY - - -	178	18th Jan. 1868	Means or apparatus employed in spinning worsted and other fibres.
KERSHAW, HENRY - - -	864	13th March 1868	Means or apparatus employed in spinning worsted and other fibres.
KERSHAW, JOHN - - -	3829	16th Dec. 1868	Improvements in drying stoves and in machinery to be used therewith.
KESSELMAYER, CHARLES AUGUSTUS.	2615	22nd Aug. 1868	Governors for steam and other motive-power engines. (Partly communicated by Emil Hermann Naeke.)
KESSELMAYER, WILLIAM JOHANNES.	2615	22nd Aug. 1868	Governors for steam and other motive-power engines. (Partly communicated by Emil Hermann Naeke.)
KEY, JOHN - - - -	433	8th Feb. 1868	Certain improvements in metallic bedsteads.
KEY, TURNER POWELL ASTON	23	3rd Jan. 1868	Scaffolding to be used for the erection of houses in the streets of populous places.
KIDD, JOSHUA - - -	138	15th Jan. 1868	Improvements in obtaining artificial light and in apparatus employed therein.
KIEFFER, JOSEPH LOUIS - -	3263	24th Oct. 1868	Sewing-machines.
KILBURN, CHARLES - - -	263	25th Jan. 1868	Construction of life and swimming belts, jackets, waistcoats and buoys.
KILNER, JAMES - - - -	2142	6th July 1868	An improved cork drawer.
KILNER, JAMES MAZE - - -	564	20th Feb. 1868	Improvements in bedsteads or sleeping accommodation, principally intended for military purposes.
KILNER, JOHN - - - -	2321	23rd July 1868	An improved method of and apparatus for manufacturing glass.
KINCAID, JOHN GEORGE - -	745	4th March 1868	Twin-screw propelling apparatus.
KING, CHARLES JOSEPH BERRY	85	9th Jan. 1868	An improved process to be employed in the tanning of skins or hides.
KING, GEORGE EDWIN - - -	1715	25th May 1868	Machinery for fluting, crimping and puffing fabrics. (Patented by William Hardy Kent.)
KING, HENRY JAMES HOGG -	1606	16th May 1868	Gauges or apparatus for ascertaining pressure.
KING, HENRY JAMES HOGG -	3626	28th Nov. 1868	Gauges or apparatus for ascertaining pressure.
KING, JOHN - - - -	1672	21st May 1868	Means or apparatus for combing wool or other fibres.
KING, JOHN FREDERICK - -	1473	5th May 1868	Mode of preparing potatoes for preservation.
KING, JOHN THOMSON - - -	1028	26th March 1868	Apparatus for dressing millstones.
KING, JOSEPH JACKSON - -	549	19th Feb. 1868	Sewing-machines.
KING, THOMAS - - - -	2196	11th July 1868	Improvements in bungs or corks for casks and other similar vessels, some parts of which are also applicable to vent pegs.
KINGHAM, JACOB BENJAMIN -	1538	11th May 1868	Nail machines.

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## ALPHABETICAL INDEX OF PATENTERS

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KINSEY, HENRY - - -	3684	3rd Dec. 1868	Steam and other boilers.
KINSEY, WILLIAM BARNS -	820	10th March 1868	Apparatus for carburetting or increasing the illuminating properties of coal gas.
KIRBY, JOHN MALSBUY -	117	13th Jan. 1868	Means of and apparatus for generating steam and warming buildings.
KIRK, ALEXANDER CARNEGIE	794	7th March 1868	Treating cast iron.
KIRK, ALEXANDER CARNEGIE	2719	3rd Sept. 1868	Improvements in packing and storing ice and in apparatus therefor. (Communicated by John Kyle.)
KIRK, GEORGE - - -	240	23rd Jan. 1868	Self-acting mules and billys for spinning and doubling wool or other fibrous substances.
KIRK, JOHN - - - -	2483	8th Aug. 1868	An improved shield for the purpose of protecting fortifications, vessels and other structures or buildings, against projectiles or other missiles of war.
KIRK, JOHN - - - -	2905	21st Sept. 1868	An improved method of fixing or attaching armour plates to vessels, fortifications and other structures.
KIRK, JOHN - - - -	3742	8th Dec. 1868	Manufacture of weavings made on bobbin net or twist lace machines.
KIRK, JOHN, the younger -	3742	8th Dec. 1868	Manufacture of weavings made on bobbin net or twist lace machines.
KIRKLAND, JOHN - - -	545	19th Feb. 1868	Construction of pumps.
KISTER, JOSEPH - - -	3906	22nd Dec. 1868	Machinery or apparatus for the manufacture of sheaves or pulleys for hoisting and hauling tackle. (Patented by John Henry Johnson.)
KITCHEN, BENJAMIN - -	2792	10th Sept. 1868	An improved mechanical apparatus to be employed for placing and securing "fog" or "detonating" signals upon the rails or metals of railways.
KITCHING, JOHN NAINBY -	2966	26th Sept. 1868	Hydraulic machinery for pulling heavy weights and straightening metal shafts, bars, beams, rails and tubes.
KITE, JAMES - - - -	1624	18th May 1868	Preparing filtering surfaces for the depuration of fluids.
KITE, JAMES - - - -	2881	18th Sept. 1868	Machinery or apparatus for depurating fluids.
KITSON, FREDERICK WILLIAM	2449	4th Aug. 1868	Friction clutches for the driving shafts of various kinds of machinery.
KITSON, RICHARD - - -	3648	30th Nov. 1868	Machines for opening and cleaning cotton or other fibrous substances. (Patented by William Edward Newton.)
KITTOE, EDMUND FREDERICK	2215	14th July 1868	Fish slices or cooking slices for turning over or lifting fish or other articles being cooked.
KITTOE, GEORGE DOMINICUS -	1254	17th April 1868	Improved apparatus for refrigerating or cooling worts and other liquids.
KITTOE, GEORGE DOMINICUS (Kittoe, George Domenicus).	2408	31st July 1868	Apparatus for cooling, heating or tempering fluids.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KLEIN, CHARLES LOUIS - -	24	3rd Jan. 1868	A new or improved mode and apparatus for eliminating a portion of the azote in furnaces and fire-places, and for utilizing the oxygen and hydrogen of water as facilitators of combustion, and as fuel or as reducers, and in some cases as decarburators. (Patented by César Long.)
KLEINKNECHT, THEODORE -	2714	2nd Sept. 1868	Improvements in securing bales of cotton and other material, and in wrappers therefor. (Patented by John Irving Campbell.)
KNEVITT, FREDERICK HARTT	3845	17th Dec. 1868	Improvements in shutters and blinds for windows, doorways and other apertures, and in the means for adjusting the same.
KNEWSTUB, FABIAN JAMES -	2607	21st Aug. 1868	Improvements in despatch boxes, partly applicable to jewel cases, dressing cases and other like cases or boxes.
KNIGHT, ALEXANDER M <sup>c</sup> -	425	8th Feb. 1868	A new or improved powder or composition for cleaning and polishing articles made of steel, iron, copper, brass or other metals.
KNIGHT, JOHN PEAKE - -	873	14th March 1868	A new or improved indicator lamp and semaphore for cabs and other public carriages, and for floating vessels, also for regulating the traffic in the public thoroughfares and rifle practice.
KNIGHTON, WILLIAM - -	3451	13th Nov. 1868	Apparatus for moulding pipes and other cylinders.
KNIGHTON, WILLIAM - -	3453	13th Nov. 1868	Improvements in apparatus for moulding and drying moulds for pipes and other cylinders, and in withdrawing them from their moulds.
KNIPP, JOHANN FRITZ - -	500	14th Feb. 1868	Albums, scrap and other similar books. (Patented by Johann Philipp Lack.)
KOCH, PHILIPPE - - -	803	7th March 1868	Machinery for making metallic nuts.
KOHN, TOBIAS - - -	2286	21st July 1868	New or improved machinery for cleaning and finishing silk, worsted and other threads.
KÖNIG, OTTO - - - -	1576	14th May 1868	A new or improved album or case for exhibiting a series of photographic or other pictures, designs or drawings. (Communicated by Francois Vité.)
KOTZÓ, PAUL - - - -	3770	11th Dec. 1868	Reaping-machines.
KOTZÓ, PAUL - - - -	3815	15th Dec. 1868	Steam-engines.
KRAFT, FREDERICK ADAM -	1952	15th June 1868	Construction of sining baths. (Patented by John Henry Johnson.)
KRAUSS, GEORGE - - -	1080	30th March 1868	An improved mode of and apparatus for stopping or retarding the progress of railway trains. (Patented by Francis Wirth.)
KROMSCHROEDER, JOHN FREDERICK GUSTAVE.	3009	1st Oct. 1868	Apparatus for generating an inflammable gas or vapour suitable to be burnt at gas-burners, to yield light and heat.
KRUPP, ALFRED - - -	3720	7th Dec. 1868	Certain improvements in breech-loading ordnance.
KRÜSS, EDMUND JOHANN -	19	2nd Jan. 1868	A new or improved camera or lantern for reflecting opaque objects.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KRÜSS, WILLIAM ANDRES -	19	2nd Jan. 1868	A new or improved camera or lantern for reflecting opaque objects.
KRUTZSCH, WILLIAM - -	602	22nd Feb. 1868	Improvements in cleaning or washing clothes and in the machines used therefor. (Communicated by Oscar Schimmel.)
KUGLER, JEAN GEORGE - -	1277	20th April 1868	Means and appliances for press copying letters and other written documents. (Patented by Charles Denton Abel.)
KYLE, JOHN - - - -	2719	3rd Sept. 1868	Improvements in packing and storing ice and in apparatus therefor. (Patented by Alexander Carnegie Kirk.)
KYNOCH, GEORGE - - -	1107	1st April 1868	Cartridges.

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LA MONT, CHARLES AUGUS- [TUS.	2387	28th July 1868	An improved preparation of eggs.
LA PENOTIÈRE, WILLIAM -	3549	23rd Nov. 1868	An improved construction of lock.
LA RUE, WILLIAM FREDERICK [DE.	1057	27th March 1868	Whist counters.
LA THIBAUDIERE, HENRY DE	3503	18th Nov. 1868	An improved liquid or composition for oiling or greasing wool and other textile materials. (Patented by Clinton Edgcumbe Brooman.)
LABAT, FELICIE - - -	3893	21st Dec. 1868	A novel bituminous composition termed "resinous bitumen." (Patented by William Edward Gedge.)
LABITTE, FRANÇOIS THÉODULE	3333	2nd Nov. 1868	A new mode of advertising.
LACK, JOHANN PHILIPP -	500	14th Feb. 1868	Albums, scrap and other similar books. (Communicated by Johann Fritz Knipp.)
LACKERSTEEN, JAMES FRE- [DERICK.	2405	31st July 1868	Means or apparatus for the preservation of organic substances.
LACOMBE, CLAUDE FERDI- [NAND.	1056	27th March 1868	Engines for obtaining motive-power by means of steam, air, gases or fluids. (Patented by William Edward Newton.)
LADLEY, JOSEPH - - -	2698	1st Sept. 1868	Machinery or apparatus for spinning and twisting wool or other fibrous substances.
LADYMAN, JAMES THOMAS -	1889	10th June 1868	Machinery or apparatus for working wood.
LAFARGUE, ALPHONSE - -	2994	30th Sept. 1868	Gauges for indicating the pressure of steam and other fluids.
LAFONE, HENRY - - -	1116	2nd April 1868	Mode of and means or furnaces for burning petroleum and other like liquids.
LAFORGUE, ADOLPHE MARIE [ALBIN.	2729	4th Sept. 1868	A new apparatus for introducing powders into natural or pathological cavities in the human body.
LAFROGNE, JULES FRANÇOIS -	3541	21st Nov. 1868	Improvements in the manufacture of gas for lighting and heating, and in apparatus employed therein. (Patented by Clinton Edgcumbe Brooman.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LAGRAFEL, ALEXANDRE -	199	20th Jan. 1868	Steam-boilers. (Patented by Alexander Melville Clark.)
LAIDLAW, ROBERT - -	643	26th Feb. 1868	Apparatus for exhausting gas, for blowing air, for pumping or forcing liquids, and for measuring liquids.
LAINÉ, ARMAND - -	572	20th Feb. 1868	Taps. (Patented by George Davies.)
LAINÉ, JEAN BAPTISTE -	888	16th March 1868	New and improved apparatus for manufacturing cartridges. (Patented by Henri Adrien Bonneville.)
LAKE, WILLIAM ROBERT -	1	1st Jan. 1868	Apparatus for regulating the speed of steam and other engines, and for indicating the power of the same. (Communicated by Edouard des François de Pontchalon.)
LAKE, WILLIAM ROBERT -	2	1st Jan. 1868	Fire and burglar proof safes. (Communicated by Benjamin Sherwood and Daniel Fitzgerald.)
LAKE, WILLIAM ROBERT -	3	1st Jan. 1868	Electric telegraph apparatus. (Communicated by Elisha Gray.)
LAKE, WILLIAM ROBERT -	84	8th Jan. 1868	Cutters for forming wood mouldings and for other like purposes. (Communicated by John Whitworth, William Whitworth and Alexander Bold Halliwell.)
LAKE, WILLIAM ROBERT -	189	17th Jan. 1868	An improved mode of treating wood-veneer and forming therefrom sheets or cards for various purposes. (Communicated by Dawson Miles.)
LAKE, WILLIAM ROBERT -	197	20th Jan. 1868	Improvements in wood rings or washers and in machinery for manufacturing the same. (Communicated by Joseph Hall.)
LAKE, WILLIAM ROBERT -	198	20th Jan. 1868	Machinery for nailing or pegging the soles of boots and shoes to their vamps or uppers. (Communicated by Lyman Reed Blake.)
LAKE, WILLIAM ROBERT -	296	28th Jan. 1868	An improved pavement. (Communicated by Clarendon Williams and Thomas Stephens.)
LAKE, WILLIAM ROBERT -	319	29th Jan. 1868	Furnaces or ovens for roasting ores. (Communicated by Riley Porter Wilson.)
LAKE, WILLIAM ROBERT -	367	3rd Feb. 1868	Leggings or gaiters and other like articles. (Communicated by William George Rule.)
LAKE, WILLIAM ROBERT -	422	7th Feb. 1868	Locks. (Communicated by Charles Herrman Eiffel.)
LAKE, WILLIAM ROBERT -	442	8th Feb. 1868	Split spikes. (Communicated by George W. McGill.)
LAKE, WILLIAM ROBERT -	443	8th Feb. 1868	Improvements in railway switches and in adjusting and signalling devices for the same. (Communicated by Martin Henry Dooly.)
LAKE, WILLIAM ROBERT -	446	10th Feb. 1868	An improved machine for scouring and cleaning grain. (Communicated by Gardner E. Throop.)
LAKE, WILLIAM ROBERT -	493	13th Feb. 1868	An improved mode of and apparatus for extracting and condensing the volatile portions of ores. (Communicated by Ferdinand Formhals.)



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## ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LAKE, WILLIAM ROBERT -	494	13th Feb. 1868	An improved whip-holder. (Communicated by Daniel Talcott.)
LAKE, WILLIAM ROBERT -	528	18th Feb. 1868	Kilns and apparatus employed in the manufacture of bricks. (Communicated by Charles L. Cornish and John McDonald.)
LAKE, WILLIAM ROBERT -	553	19th Feb. 1868	An improved process of seasoning and preserving wood. (Communicated by Sigismund Beer.)
LAKE, WILLIAM ROBERT -	573	20th Feb. 1868	Apparatus for shearing or clipping the wool or hair of sheep and other animals. (Communicated by James Andrew Bolton Higham.)
LAKE, WILLIAM ROBERT -	574	20th Feb. 1868	Stoves or furnaces for heating air. (Communicated by Andrew Thunder.)
LAKE, WILLIAM ROBERT -	592	22nd Feb. 1868	Machinery for supplying type forms in printing presses with various coloured inks for each impression. (Communicated by George Washington Wood.)
LAKE, WILLIAM ROBERT -	599	22nd Feb. 1868	Electrical signal or alarm apparatus. (Communicated by George Washington Shawk and Job Franz.)
LAKE, WILLIAM ROBERT -	614	24th Feb. 1868	Improvements in steam-boilers and in feed-water apparatus for the same. (Communicated by Robert Wilde.)
LAKE, WILLIAM ROBERT -	616	24th Feb. 1868	Artificial breasts. (Communicated by Hosea Wait Libbey.)
LAKE, WILLIAM ROBERT -	760	5th March 1868	Mechanism for preparing soles and for sewing the same upon boots and shoes. (Communicated by Lyman Reed Blake.)
LAKE, WILLIAM ROBERT -	818	9th March 1868	Improvements in the treatment of fibrous materials for the manufacture of various articles, and in the means for rendering the same fire and water proof. (Communicated by Robert Arpheus Lowrey.)
LAKE, WILLIAM ROBERT -	905	17th March 1868	An improved substitute for hair stuffing, and mode of manufacturing the same from vegetable fibres. (Communicated by Nathan W. Blanchard.)
LAKE, WILLIAM ROBERT -	918	18th March 1868	An improved mode of and apparatus for effecting the continuous return, into a steam-boiler, of the water evaporated and taken from the same. (Communicated by François Nicolas Santenard.)
LAKE, WILLIAM ROBERT -	931	19th March 1868	Ventilating windows and window-blinds. (Communicated by William Pitt Hoffman.)
LAKE, WILLIAM ROBERT -	972	23rd March 1868	Metal ties or bands for securing bales of cotton or other substance. (Communicated by Joseph Wild Branch and Joseph Crookes.)
LAKE, WILLIAM ROBERT -	981	23rd March 1868	Metal ties or bands for securing bales of cotton or other substance. (Communicated by Joseph Wild Branch and Joseph Crookes.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LAKE, WILLIAM ROBERT -	1070	28th March 1868	Filters. (Communicated by Henry Torstrick.)
LAKE, WILLIAM ROBERT -	1110	1st April 1868	Machinery for manufacturing horse-shoe nails. (Communicated by Silas Safford Putnam.)
LAKE, WILLIAM ROBERT -	1183	8th April 1868	Machinery for cutting and working rocks and other hard substances, chiefly designed for mining, tunnelling and other like operations. (Communicated by James Asbury M'Kean.)
LAKE, WILLIAM ROBERT -	1314	22nd April 1868	An improved lubricating packing. (Communicated by William Johnson Towne.)
LAKE, WILLIAM ROBERT -	1315	22nd April 1868	Machinery for manufacturing small articles from sheet metal. (Communicated by Lauriston Towne.)
LAKE, WILLIAM ROBERT -	1316	22nd April 1868	Improvements in carpet linings and in machinery for manufacturing the same. (Communicated by George Washington Chipman.)
LAKE, WILLIAM ROBERT -	1333	23rd April 1868	An improved steam cultivator. (Communicated by Philander Hayden Standish.)
LAKE, WILLIAM ROBERT -	1339	23rd April 1868	Cartridge boxes or holders. (Communicated by Paul Friedrich Schneider.)
LAKE, WILLIAM ROBERT -	1420	30th April 1868	Machinery for spinning fibrous materials. (Communicated by Charles Jenkins Harris and Edwin Holmes Bugbee.)
LAKE, WILLIAM ROBERT -	1444	2nd May 1868	An improved mode of and apparatus for generating gas and mixing the same with atmospheric air, for heating and illuminating purposes. (Communicated by John Tatem Rich.)
LAKE, WILLIAM ROBERT -	1446	2nd May 1868	Improvements in buckets and other vessels of wood of analogous form, and in means for producing the same. (Communicated by David Lyman.)
LAKE, WILLIAM ROBERT -	1447	2nd May 1868	Dynamometers. (Communicated by Charles Neer.)
LAKE, WILLIAM ROBERT -	1537	11th May 1868	An improved device for holding scrubbing brushes. (Communicated by Thomas Jefferson Strong.)
LAKE, WILLIAM ROBERT -	1544	12th May 1868	Improvements in fans and in the method of combining the same with pocket-books and other like articles. (Communicated by Otto Brück.)
LAKE, WILLIAM ROBERT -	1588	14th May 1868	An improved apparatus for marking or directing boxes and parcels, and for other like purposes. (Communicated by William Wirt Se-combe.)
LAKE, WILLIAM ROBERT -	1602	15th May 1868	An improved mode of embalming or preserving dead bodies. (Communicated by Charles Augustus Seely, Charles James Eames, William Robert Cotton Clark and Mary Louisa Booth.)

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LAKE, WILLIAM ROBERT	- 1618	16th May 1868	Apparatus employed in the manufacture of iron and steel. (Communicated by Alexander Lyman Holley and John B. Pearse.)
LAKE, WILLIAM ROBERT	- 1664	20th May 1868	An improved device for marking and creasing tucks in cloth or other material, upon a sewing-machine. (Communicated by Mary Ann Duffy.)
LAKE, WILLIAM ROBERT	- 1721	25th May 1868	Horses' harness. (Communicated by John B. Folger.)
LAKE, WILLIAM ROBERT	- 1737	26th May 1868	Ploughs and other implements for cultivating land. (Communicated by Samuel Godfrey Reynolds.)
LAKE, WILLIAM ROBERT	- 1793	30th May 1868	Spirit levels. (Communicated by Leonard Laroy Davis.)
LAKE, WILLIAM ROBERT	- 1928	12th June 1868	An improved anchor. (Communicated by Frederick Wittram.)
LAKE, WILLIAM ROBERT	- 1943	13th June 1868	Machinery for hulling or scouring wheat and other grain. (Communicated by Nathaniel Miller Burr.)
LAKE, WILLIAM ROBERT	- 2078	27th June 1868	An improved mode of and apparatus for dyeing textile fabrics and yarns. (Communicated by Louis Gouchon.)
LAKE, WILLIAM ROBERT	- 2086	29th June 1868	An improved apparatus for generating and burning the vapour of naphtha. (Communicated by Joseph Weatherby Bartlett.)
LAKE, WILLIAM ROBERT	- 2210	13th July 1868	Permanent way of railways. (Communicated by Moritz Hilf.)
LAKE, WILLIAM ROBERT	- 2211	13th July 1868	Railway carriages. (Communicated by Thomas Clare Hargrave.)
LAKE, WILLIAM ROBERT	- 2243	16th July 1868	An improved implement for cutting hay, straw and other like substances. (Communicated by George Smith Fisher.)
LAKE, WILLIAM ROBERT	- 2244	16th July 1868	Links or couplings for harness and other purposes. (Communicated by George Smith Fisher.)
LAKE, WILLIAM ROBERT	- 2268	18th July 1868	Propelling machinery for canal boats and other vessels. (Communicated by Frederick R. Pike.)
LAKE, WILLIAM ROBERT	- 2327	24th July 1868	Teeth for machines for picking or separating cotton, wool and other fibres. (Communicated by Robert Wilde and Charles Schofield.)
LAKE, WILLIAM ROBERT	- 2346	25th July 1868	Improvements in steam-boilers, and in the means for maintaining the proper water level in the same. (Communicated by Robert Wilde.)
LAKE, WILLIAM ROBERT	- 2368	28th July 1868	Improvements in glue and in the mode of and apparatus for manufacturing the same, the said improvements being also applicable to the manufacture of gelatine and other material. (Communicated by Christian Wahl.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LAKE, WILLIAM ROBERT -	2376	29th July 1868	An improved compound to be used as a substitute for linseed oil in the preparation of paint and varnish. (Communicated by Robert Edmund Ferguson and Benbow Brunswick Ferguson.)
LAKE, WILLIAM ROBERT -	2377	29th July 1868	Improvements in breech-loading fire-arms, parts of which improvements are applicable to other fire-arms. (Communicated by Samuel Remington.)
LAKE, WILLIAM ROBERT -	2378	29th July 1868	Improvements in sewing-machines and in the means for heating the thread used in the same. (Communicated by Daniel Mills.)
LAKE, WILLIAM ROBERT -	2435	6th Aug. 1868	Felted fabrics. (Communicated by Henry Hayward.)
LAKE, WILLIAM ROBERT -	2621	22nd Aug. 1868	An improved mode of and means for uniting the ends of railway rails. (Communicated by Daniel Rice Pratt.)
LAKE, WILLIAM ROBERT -	2628	24th Aug. 1868	Cartridges for breech-loading fire-arms. (Communicated by Samuel Norris.)
LAKE, WILLIAM ROBERT -	2691	31st Aug. 1868	An improved relieving coupling for wire rigging. (Communicated by W. H. Shock.)
LAKE, WILLIAM ROBERT -	2692	31st Aug. 1868	Projectiles for ordnance and fire-arms. (Communicated by W. H. Shock.)
LAKE, WILLIAM ROBERT -	2704	1st Sept. 1868	Looms for weaving. (Communicated by George Crompton.)
LAKE, WILLIAM ROBERT -	2795	10th Sept. 1868	Condensing apparatus for steam-engines. (Communicated by Franklin Ransom.)
LAKE, WILLIAM ROBERT -	2815	12th Sept. 1868	Machinery for manufacturing brushes. (Communicated by Joseph Sheldon.)
LAKE, WILLIAM ROBERT -	2818	14th Sept. 1868	An improved substitute for hair stuffing, and mode of manufacturing the same from vegetable fibres. (Communicated by Nathan W. Blanchard.)
LAKE, WILLIAM ROBERT -	2842	15th Sept. 1868	An improved covering for walls, ceilings and other surfaces. (Communicated by Frederick Woolcot Armstrong.)
LAKE, WILLIAM ROBERT -	2859	16th Sept. 1868	Manufacture of heads for dolls and for other toys. (Communicated by George H. Hawkins.)
LAKE, WILLIAM ROBERT -	2865	17th Sept. 1868	Explosive compounds. (Communicated by Joseph Hafenegger.)
LAKE, WILLIAM ROBERT -	3017	1st Oct. 1868	An improved mode of constructing the door frames of furnaces for steam generators. (Communicated by Augustin Irel Ambler, Charles Edwin Rittenhouse and Robert Emmet Preston.)
LAKE, WILLIAM ROBERT -	3038	5th Oct. 1868	An improved extension chandelier. (Communicated by Hiram Tucker.)
LAKE, WILLIAM ROBERT -	3117	10th Oct. 1868	An improved process and means for electroplating with nickel. (Communicated by William Henry Remington.)
LAKE, WILLIAM ROBERT -	3138	13th Oct. 1868	An improved mode of and means for dyeing hair. (Communicated by William Patton.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LAKE, WILLIAM ROBERT -	8142	14th Oct. 1868	An improved apparatus for drilling series of small holes and for other like operations. (Communicated by Charles Francis Ritchel.)
LAKE, WILLIAM ROBERT -	8144	14th Oct. 1868	Machinery for spinning wool and other fibrous materials. (Communicated by John Goulding.)
LAKE, WILLIAM ROBERT -	8151	14th Oct. 1868	Apparatus for generating and burning the vapour of hydrocarbon liquids. (Communicated by David Lowe.)
LAKE, WILLIAM ROBERT -	8164	15th Oct. 1868	Breech-loading volley-firing guns. (Communicated by Thomas J. Cranmer and William P. Moffat.)
LAKE, WILLIAM ROBERT -	8165	15th Oct. 1868	Repeating breech-loading fire-arms. (Communicated by Valentine Fogerty.)
LAKE, WILLIAM ROBERT -	8194	19th Oct. 1868	An improved method of preparing, desiccating and preserving fish. (Communicated by William D. Cutler.)
LAKE, WILLIAM ROBERT -	8344	4th Nov. 1868	An improved low-water alarm apparatus for steam-boilers. (Communicated by Theodore F. Taylor.)
LAKE, WILLIAM ROBERT -	8365	5th Nov. 1868	Machinery for nailing or pegging soles to boots or shoes. (Communicated by Elmer Townsend.)
LAKE, WILLIAM ROBERT -	8401	9th Nov. 1868	An improved method of securing a door-knob or other handle upon a spindle. (Communicated by Matthew Andrew.)
LAKE, WILLIAM ROBERT -	8495	17th Nov. 1868	An improved bayonet which will also serve as a digging implement. (Communicated by Colonel Edmund Rice.)
LAKE, WILLIAM ROBERT -	8532	20th Nov. 1868	An improved mode of and means for operating reciprocating saws. (Communicated by Charles Joseph Vowinkel.)
LAKE, WILLIAM ROBERT -	8536	21st Nov. 1868	An improved mode of and means for preparing and baling chopped hay and straw. (Communicated by Charles Brown.)
LAKE, WILLIAM ROBERT -	8584	25th Nov. 1868	Machinery for manufacturing cigars. (Communicated by Richard Austin Bright junior and Lucien Bonaparte Stone.)
LAKE, WILLIAM ROBERT -	8596	25th Nov. 1868	Improvements in sad-irons and in the means for heating the same. (Communicated by Sherman Minor Johnson, Malcolm Clark Turner and Robert Turner.)
LAKE, WILLIAM ROBERT -	8609	26th Nov. 1868	Paddle-wheels for steam-ships. (Communicated by Charles Seymour, Dillingham Clark Washington and Fitch Raymond.)
LAKE, WILLIAM ROBERT -	8610	26th Nov. 1868	Harvesting machines. (Communicated by David M. Osborne.)
LAKE, WILLIAM ROBERT -	8686	4th Dec. 1868	Knitting machines. (Communicated by John Gilbert Avery and Samuel V. Essick.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LAKE, WILLIAM ROBERT -	3687	4th Dec. 1868	An improved machine for cutting edible roots. (Communicated by Solomon Van Ransselaar Hakes, William Barker McCrury and William Samuel Patrick.)
LAKE, WILLIAM ROBERT -	3713	5th Dec. 1868	An improved apparatus for removing the stem of metal formed upon printer's type in the process of casting. (Communicated by David Bruce.)
LAKE, WILLIAM ROBERT -	3722	7th Dec. 1868	Rooms and apparatus for photographing by artificial light. (Communicated by George Kendall Proctor.)
LAKE, WILLIAM ROBERT -	3723	7th Dec. 1868	Improvements in railway carriage wheels, parts of which improvements are applicable to locomotive wheels. (Communicated by David Philip Nickerson and Worthy Stevens Streater.)
LAKE, WILLIAM ROBERT -	3876	21st Dec. 1868	Machinery for cutting and working rocks and other hard substances, chiefly designed for mining, tunnelling and other like operations. (Communicated by James Asbury M'Kean.)
LAKE, WILLIAM ROBERT -	3933	24th Dec. 1868	An improved combined boat and carriage designed for use on either land or water, and in apparatus connected therewith. (Communicated by François de Amezaga.)
LAKE, WILLIAM ROBERT -	3950	28th Dec. 1868	An improved machine for pegging boots and shoes. (Communicated by David Childs Rogers.)
LAKE, WILLIAM ROBERT -	3979	31st Dec. 1868	Spinning machines. (Communicated by John Goulding.)
LAKE, WILLIAM ROBERT -	3980	31st Dec. 1868	Machinery for untwisting and separating the fibres of hair ropes. (Communicated by Abner Mellen, John H. Wilcox and Abner Mellen, junior.)
LAKIN, ROBERT - -	3579	25th Nov. 1868	Machines for spinning and doubling.
LALOR, BARTHOLOMEW -	2199	11th July 1868	Locks. (Patented by Clinton Edgcumbe Brooman.)
LAMB, ISAAC WIXON - -	1842	5th June 1868	Combination locks. (Patented by Alexander Melville Clark.)
LAMB, JOHN - - -	1474	5th May 1868	Bobbin frames for carpet looms.
LAMB, JOSEPH GRISWOLD -	1018	25th March 1868	Spinning machinery. (Patented by Alfred Vincent Newton.)
LAMBE, FREDERICK - -	610	24th Feb. 1868	Treatment of paraffine.
LAMBE, FREDERICK - -	648	26th Feb. 1868	Purifying hydrocarbon oils.
LAMBE, FREDERICK - -	2356	27th July 1868	Treating animal and vegetable oils, fats, fatty acids, wax, resins, essential oils, balsams, and the solid and liquid hydrocarbons.
LAMBE, FREDERICK - -	3696	4th Dec. 1868	Improvements in the mode of treating and purifying paraffine, and in apparatus to be used therein.
LAMBERT, JOHN - - -	2036	24th June 1868	Ornamenting lace and other fabrics.
LAMBERT, JOHN - - -	2993	30th Sept. 1868	Apparatus for raising water.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LANCASTER, THOMAS - -	3737	8th Dec. 1868	Improvements in economizing the consumption of fuel in furnaces, and for inducing more perfect combustion.
LANDA, JULES ALEXANDRE [ALPHONSE.	3953	29th Dec. 1868	An improved machinery for engraving letters, medaillons and other ornaments on stone or metal.
LANDFEAR, WILLIAM RU- [DOLPHUS.	2422	1st Aug. 1868	Machinery for manufacturing metallic eyelets. (Patented by James Asbury McKean.)
LANDLESS, JAMES - - -	2580	18th Aug. 1868	Certain improvements in boilers or generators for steam, which are also applicable for other heating purposes.
LANE, DENNY - - -	1177	7th April 1868	Improvements in the manufacture of floor and other cloth or coverings for floors, and in covering floors.
LANE, DENNY - - -	1195	9th April 1868	Manufacture of gas.
LANE, JOHN EDWARD - -	936	19th March 1868	Apparatus for heating or warming buildings or apartments and for other similar purposes.
LANE, THOMAS - - -	1014	25th March 1868	Looms for weaving.
LANG, JOHN - - -	132	15th Jan. 1868	Improvements relating to the printing of music.
LANGAN, WILLIAM - - -	1875	9th June 1868	Improvements in or appertaining to steam-boilers.
LANGDALE, SAMPSON - -	2297	22nd July 1868	Preparation of artificial manures.
LANGDON, CHARLES - -	3872	19th Dec. 1868	Ladies' skirts. (Patented by William Sparks Thomson.)
LANGE, JACOB HEINRICH [GUSTAV.	1169	7th April 1868	An improved boat-detaching apparatus. (Patented by Edwin Henry Newby.)
LANGE, JOHN - - -	3707	5th Dec. 1868	Improved apparatus for treating flour. (Patented by Alfred Vincent Newton.)
LANGFORD, JOHN - - -	3327	31st Oct. 1868	Non-conductors of heat for the handles of teapots and other vessels, and for other like purposes.
LANGLOIS AND COMPANY -	1443	2nd May 1868	Improvements in apparatus for exhibiting minute photographic pictures, and in pictures or slides to be used therewith. (Patented by John Henry Johnson.)
LANGWELL, WILLIAM - -	779	6th March 1868	Improvements in the manufacture of bottles and in the apparatus to be employed therein.
LANGWILL, PETER - - -	1695	23rd May 1868	Improved shadowless lamps. (Patented by Edwin Jones.)
LARDIT, LOUIS HIPPOLYTE -	3630	28th Nov. 1868	An improved plate-warming apparatus. (Patented by William Edward Gedge.)
LARGE, HENRY - - -	2078	27th June 1868	Machinery for making bricks.
LARRUE, LOUIS - - -	2161	8th July 1868	Ornamenting textile fabrics, feathers, artificial flowers and such like articles. (Patented by Charles Denton Abel.)
LASCHÉ, JEAN MARIE - -	3449	13th Nov. 1868	Manufacture of hangings and coverings for walls and other decorative purposes. (Patented by Clinton Edgcumbe Brooman.)
LATHAM, JAMES - - -	3625	28th Nov. 1868	An improved machine for cracking palm and other nuts.
LATTES, JEAN PIERRE - -	1829	4th June 1868	Construction of ploughs. (Patented by William Edward Gedge.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LATTES, JEAN PIERRE - -	3679	3rd Dec. 1868	Construction of ploughs. (Patented by William Edward Gedge.)
LAUENSTEIN, CHARLES - -	3202	20th Oct. 1868	Certain improvements in the method of purifying and decolorizing paraffine. (Communicated by Leo Schuch.)
LAURENDEAU, CHARLES JOSEPH	2353	27th July 1868	Life-preserving apparatus for floating and sustaining persons in the water.
LAURENT, JOANNY - - -	1496	7th May 1868	Spring mattresses and seats. (Patented by Henri Adrien Bonneville.)
LAURENT, JULIEN - - -	1871	6th June 1868	Machinery for forging or shaping metals. (Patented by Alexander Melville Clark.)
LAURIE, JOHN - - -	3963	30th Dec. 1868	Machinery for screwing and tapping.]
LAVAGNE, PHILIPPE LOUIS [HENRI CHARLES.	1924	12th June 1868	Cranes. (Patented by George Davies.)
LAW, DAVID - - - -	311	29th Jan. 1868	Improvements in the manufacture of cast-iron pipes and similar articles, and in apparatus therefor.
LAW, HENRY - - - -	3777	12th Dec. 1868	Water-closets.
LAW, JAMES - - - -	1810	2nd June 1868	A new or improved instrument for drawing corks from bottles.
LAW, JAMES - - - -	2051	26th June 1868	Machinery and apparatus for finishing yarns made of wool and other fibrous substances.
LAW, JOSEPH - - - -	2730	4th Sept. 1868	Certain improvements in condensers of carding-engines.
LAWRENCE, HENRY - -	2226	14th July 1868	Moving furnace bars.
LAWRENCE, JOHN - - -	728	3rd March 1868	Machinery for screening and sifting coals, cinders and other matters.
LAWSON, ARTHUR TREDGOLD -	3452	13th Nov. 1868	Carding-engines.
LAWSON, JOHN - - -	2154	7th July 1868	Machines for hackling, combing, cleaning, preparing and spinning flax, tow, jute, hemp and other fibrous substances.
LAWSON, THOMAS - - -	3452	13th Nov. 1868	Carding-engines.
LE BLANC, ARMAND JULES -	2167	8th July 1868	Manufacture of belts, bands or ropes for the transmission of power for driving machinery and for other purposes.
LE GRAS, LOUIS NAPOLEON -	210	21st Jan. 1868	Churns.
LE MAT, FRANÇOIS ALEXANDRE	3131	13th Oct. 1868	Construction of revolving and repeating fire-arms.
LE ROY, FERDINAND - -	619	25th Feb. 1868	An improved non-conducting composition for preventing the radiation or transmission of heat or cold, and an improved method of applying the same.
LE ROY, FERDINAND - -	2492	10th Aug. 1868	An improved non-conducting composition for preventing the radiation or transmission of heat or cold, and an improved method of applying the same.
LEACH, EDMUND - - -	3147	14th Oct. 1868	Travelling lattices used for conveying fibrous materials into or out of machines.
LEACH, GEORGE - - -	2477	7th Aug. 1868	Improvements in machinery for carding wool and other fibrous substances, and in the mode of and apparatus for forming bats or slivers.
LEACH, JABEZ - - -	3538	21st Nov. 1868	Improved means of preparing wool or other fibre for feeding same to carding-engines and condensers.
LEACOCK, JAMES - - -	678	28th Feb. 1868	Paving for streets, roads and ways.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LEAHY, EDMUND - - -	1118	2nd April 1868	An improved moveable railway for ordinary carriages.
LEAK, ALFRED JOHN - -	2552	15th Aug. 1868	Mode of and means or apparatus for driving or actuating machinery or apparatus employed in the manufacture of pottery and other like articles.
LEAK, ELIAS - - -	2552	15th Aug. 1868	Mode of and means or apparatus for driving or actuating machinery or apparatus employed in the manufacture of pottery and other like articles.
LEAKE, RICHARD - - -	1540	11th May 1868	Apparatus for the prevention of smoke in steam-boiler and other furnaces.
LEAKE, ROBERT - - -	790	7th March 1868	Machinery for etching or engraving rollers for printing.
LEALE, ANDREAS FRANZ -	2412	31st July 1868	Improved apparatus and means for preventing incrustation in steam-boilers and other vessels.
LEATHAM, WILLIAM - -	2915	22nd Sept. 1868	Improvements in apparatus for preventing accidents to steam-boilers, and for drawing off steam therefrom or reducing the pressure of such steam, also in apparatus for drawing off water produced by the condensation of steam from pipes or vessels containing steam under pressure.
LEAVER, JOSEPH CHRISTOPHER	2212	14th July 1868	Construction of railway sleepers.
LEBACQ, FRANÇOIS - - -	2122	2nd July 1868	Improvements in shoes for horses and other animals, and in the method of securing the same to the hoof. (Patented by John Henry Johnson.)
LEBLAN, JULES - - -	8304	28th Oct. 1868	A new and improved combination, application and arrangement of apparatus for giving warning signals or otherwise indicating the presence of fire, or any undue increase or variation of temperature, in apartments, buildings, vessels, mines or other places. (Patented by John Garrett Tongue.)
LECLERC, LOUIS - - -	1259	17th April 1868	A novel apparatus for putting boots and shoes on the feet. (Patented by William Edward Gedge.)
LECOMTE, LOUIS ERNEST -	888	16th March 1868	New and improved apparatus for manufacturing cartridges. (Patented by Henri Adrien Bonneville.)
LEDGER, EDWARD - - -	2581	18th Aug. 1868	Improvements in machinery for obtaining motive and mechanical hydraulic power.
LEDWARD, WILLIAM JELLI- [CORSE.	2949	25th Sept. 1868	Mechanical timekeepers for recording the time when workmen come to or leave their employment.
LEE, HENRY MICHAEL - -	804	9th March 1868	Cases employed to contain visiting or address cards.
LEE, HENRY MICHAEL - -	2749	7th Sept. 1868	Cases employed to contain visiting or address cards.
LEE, JAMES ABRAHAM - -	784	3rd March 1868	Machinery for cutting and reducing wood, adapted especially to prepare it for the preparation of paper fibre therefrom.
LEE, JOHN - - -	3156	15th Oct. 1868	Construction and arrangement of the furnaces of steam-boilers.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LEE, THOMAS VINCENT - -	211	21st Jan. 1868	Producing charcoal fuel and firelights from peat, and for kilns and machinery to be employed therein, such machinery being also applicable for the making of coal dust into coke.
LEEMING, JOHN - - -	1199	9th April 1868	Looms for weaving.
LEETCH, JAMES - - -	518	15th Feb. 1868	An improved apparatus for transmitting signals by pneumatic pressure.
LEGENDEE, Remy NICOLAS -	901	17th March 1868	Improved fuel by the use of which the kindling of fires will be greatly facilitated. (Patented by William Edward Gedge.)
LEGG, ROBERT - - -	3013	1st Oct. 1868	Improvements in the manufacture of twisted or spun tobacco and in machinery and appliances used therefor, a part of which is applicable to the winding of all twisted fabrics.
LEGRAND - - - -	1601	15th May 1868	Permanent way of railways. (Patented by Alexander Melville Clark.)
LEGRAND, ACHILLE PHILIPPE [CYPRIEN.	887	16th March 1868	Permanent way of railroads. (Patented by Henri Adrien Bonneville.)
LEGRAND, AMÉDÉE FRANÇOIS	1431	1st May 1868	Machinery or apparatus for burling and shearing textile fabrics. (Patented by John Henry Johnson.)
LEGRAND, PIERRE - - -	886	16th March 1868	Jacquart looms. (Patented by Henri Adrien Bonneville.)
LEHEUP, EDWARD - - -	1425	1st May 1868	Manufacture of wooden boxes.
LEIGH, FRANCIS AUGUSTINE -	1243	16th April 1868	An improved machine for planting potatoes.
LEIGH, FREDERICK ALLEN -	2402	31st July 1868	Carding-engines.
LEITER, JOSEF - - -	1633	19th May 1868	A new manufacture of cases for pipes and tubes used in smoking. (Patented by Julius Flachfeld.)
LEJEUNE, AUGUSTE ANTOINE -	2784	10th Sept. 1868	Manufacture of certain colours employed in printing fabrics.
LELLAN, WALTER MAC - -	3846	30th Nov. 1868	Improvements in fixing the rails of railways and manufacturing hollow metallic keys for so doing, and in the modes, means and mechanism for these purposes.
LEMAIRE, CHARLES ARMAND -	2733	4th Sept. 1868	Thermometers. (Patented by William Edward Newton.)
LEMASSEN, ALFRED - - -	498	14th Feb. 1868	Improvements in the construction of dials or indicators for showing the distance travelled by cabs and other public conveyances, and the fares due for the same.
LEMON, CAMPBELL SWEENEY	101	11th Jan. 1868	Shirt fronts and other similar garments.
LENNOX, PATRICK - - -	841	11th March 1868	An improved machine for beaming hides or skins, as well as for scouring and sleeking leather.
LENNOX, WILLIAM HENRY -	3840	17th Dec. 1868	Production of surfaces for printing music.
LENT, JULIUS - - - -	1092	31st March 1868	Improvements in electric telegraphs and in apparatus connected therewith.
LEOD, JOHN M <sup>c</sup> - - -	629	25th Feb. 1868	Apparatus for washing yarns.
LEOD, JOHN M <sup>c</sup> - - -	1968	17th June 1868	Apparatus for dyeing yarns.
LEONARD, WILLIAM - - -	1947	15th June 1868	An improvement in horse collars.
LEONI, SIGISMUND - - -	3124	12th Oct. 1868	Heating and cooking apparatus.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LEPLAY, HIPPOLYTE - -	2748	7th Sept. 1868	Apparatus or means for feeding and burning mineral oils and essences for lighting purposes. (Patented by Clinton Edgcumbe Brooman.)
LEROY, CLAUDE NICOLAS -	979	23rd March 1868	Grease cups or apparatus for lubricating machinery.
LEROY, LAURENT EUGÈNE -	3867	19th Dec. 1868	An improved method of advertising and apparatus therefor.
LESLIE, ALEXANDER - -	1653	20th May 1868	Machinery or apparatus for steam cultivation.
LESSIEUX, THE SOCIETY PAUL [CORPET AND.]	1015	25th March 1868	Machinery for the manufacture of paper tubes specially intended for use in spinning machinery. (Patented by Clinton Edgcumbe Brooman.)
LESTER, THOMAS - - -	2687	31st Aug. 1868	Steam-engines.
LEVER, ELLIS - - -	2045	25th June 1868	Certain improvements in the preparation or coating of woven fabrics which are to be subsequently rendered liquid proof or non-inflammable.
LÉVY, LAZARE - - -	1485	6th May 1868	Improvements in the mode of manufacturing albumen and in the apparatus connected therewith. (Patented by Arthur Charles Henderson.)
LEWIS, CHARLES WILLIAM -	123	14th Jan. 1868	An improved spirit level. (Communicated by H. G. Julian.)
LEWIS, DAVID - - -	999	24th March 1868	Portable tables.
LEWIS, JOHN - - -	374	4th Feb. 1868	Moveable fire-bars.
LEWIS, JOHN - - -	2352	27th July 1868	Means and apparatus for increasing heat by combustion of fuels and consuming smoke.
LEWIS, JOHN MILTON - -	260	25th Jan. 1868	An improved apparatus for securing watches, purses, or other valuables when worn or carried in pockets.
LEWIS, WALTER - - -	2360	28th July 1868	Needle wrappers.
LEWIS, WILLIAM - - -	3882	21st Dec. 1868	Ploughs for tilling land.
LEWTAS, JOSEPH - - -	92	10th Jan. 1868	Improved apparatus for holding and releasing the cords of venetian and other blinds.
LEWTHWAITE, JOHN - -	741	4th March 1868	Improvements in treating the material known as "parkesine," and in applying it to various useful and ornamental purposes.
LEWTHWAITE, JOHN - -	3383	7th Nov. 1868	Apparatus for boring and working in rock, stone or earth, applicable to sinking artesian and other wells, to mining and other purposes.
LEWTHWAITE, JOHN - -	3429	11th Nov. 1868	Machinery for the shaping of wood and similar materials.
LEYKAUF, ANTON - - -	3527	20th Nov. 1868	The manufacture of a new or improved colouring matter.
LHOTE, JEAN BAPTISTE -	677	28th Feb. 1868	Manufacture of moulds for moulding glass or like material. (Patented by Clinton Edgcumbe Brooman.)
LIBBEY, HOSEA WAIT - -	616	24th Feb. 1868	Artificial breasts. (Patented by William Robert Lake.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LIDDARD, JOHN - - -	1848	24th April 1868	Improvements in the rails and chairs of railways, and in the method of adapting railway chairs to rails.
LIDDELL, WILLIAM HODGSON	3309	29th Oct. 1868	Improvements in treating all kinds of pig skins in the processes of preparation, tanning, currying, enamelling and japaning, and in utilizing the products.
LIEBERMANN, CHARLES - -	3850	18th Dec. 1868	Preparing coloring matters.
LILLEY, JOHN - - - -	1665	21st May 1868	Ships' compasses.
LILLIE, GEORGE ARTHUR [HOWARD.	1807	2nd June 1868	Street paving.
LILLIE, JOSEPH - - -	1423	1st May 1868	Apparatus for regulating, measuring and registering the flow of liquids.
LIN, CHARLES DE - - -	3154	15th Oct. 1868	Manufacture or preparation of artificial fuel. (Patented by William Edward Gedge.)
LINARD, JOSEPH - - -	1845	5th June 1868	A new and improved process for feeding sugar factories or distilleries. (Patented by Henri Adrien Bonneville.)
LINCOLN, WILLIAM - - -	522	17th Feb. 1868	An improved lamp burner.
LINDSLEY, GEORGE - - -	695	29th Feb. 1868	Improvements in obtaining and applying motive-power for propelling carriages and for other purposes, and in apparatus employed therein.
LINNEMANN, JOHANN - - -	863	13th March 1868	An improved portable side weapon adapted for the use of the army more particularly. (Patented by Carl Severin Möller.)
LINNETT, JOHN BARNES - -	925	18th March 1868	Means of producing optical illusions.
LIPPENS, HENRI LOUIS [AUGUSTE.	1719	25th May 1868	Looms for weaving.
LISTER, GEORGE - - - -	1265	18th April 1868	Machinery or apparatus for feeding alivers of wool or other filamentous materials to carding and condensing engines or machines.
LISTER, ISAAC SOLLY - - -	960	21st March 1868	Improvements in hats and other coverings to the head, to obtain ventilation and comfort in wear. (Communicated by George Deas.)
LISTER, SAMUEL CUNLIFFE -	470	11th Feb. 1868	Looms for weaving cut pile fabrics.
LISTER, SAMUEL CUNLIFFE -	1060	27th March 1868	Manufacture of cut pile fabrics.
LISTER, SAMUEL CUNLIFFE -	2383	29th July 1868	Manufacture of cut pile fabrics.
LISTER, SAMUEL CUNLIFFE -	2389	30th July 1868	Improvements in the manufacture of silk velvets which are woven face to face and then cut asunder, also in treating silk to be used in such manufacture. (Communicated by Jacinto Barran.)
LISTER, SAMUEL CUNLIFFE -	2538	13th Aug. 1868	Machinery for combing wool, silk and other fibre.
LISTER, SAMUEL CUNLIFFE -	3669	2nd Dec. 1868	Weaving velvets and other piled fabrics.
LISTER, SAMUEL CUNLIFFE -	3832	16th Dec. 1868	Steam-boilers.
LISTER, SAMUEL CUNLIFFE -	3834	16th Dec. 1868	Improvements in preparing wool, flax and china grass, and in combing cotton, wool, flax and china grass.
LITCHFIELD, JOSEPH - - -	2475	7th Aug. 1868	Improvements in the manufacture of lace fabrics and in apparatus employed therein.

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## ALPHABETICAL INDEX OF PATENTEES

[Lon]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LITTLE, DUGALD - - -	1006	25th March 1868	Improvements in reducing the temperature of air in producing ice in preserving animal and vegetable substances, and in apparatus therefor. (Patented by Robert Little.)
LITTLE, JOHN - - -	3285	27th Oct. 1868	Glass furnaces.
LITTLE, ROBERT - - -	1006	25th March 1868	Improvements in reducing the temperature of air in producing ice in preserving animal and vegetable substances, and in apparatus therefor. (Communicated by Dugald Little.)
LITTLE, JOHN - - -	3681	3rd Dec. 1868	An improved method of constructing furnaces, whereby more perfect combustion takes place and the smoke from the fuel is more thoroughly consumed.
LIVCHAK, JOSEF - - -	2162	8th July 1868	Construction of aeronautical apparatus.
LIVSEY, JAMES - - -	345	31st Jan. 1868	An improved material that may be used as a substitute for glass.
LIVSEY, JAMES - - -	673	28th Feb. 1868	Coupling, driving and retarding locomotive carriage or other wheels on railways or for other purposes.
LIVSEY, PETER JOEL - -	895	16th March 1868	Machinery for combing cotton and other fibrous materials. (Communicated by Ira Dimock.)
LIVSEY, PETER JOEL - -	3436	12th Nov. 1868	Sewing-machines. (Communicated by Thomas Antony Macaulay.)
LLOYD, GEORGE A. - - -	1162	6th April 1868	Anchors. (Patented by Alfred Vincent Newton.)
LLOYD, HUGH HUGHES - -	174	18th Jan. 1868	Coffins.
LO PRESTI, BARON LUDWIG [ALMOS.]	3234	22nd Oct. 1868	Improvements in the construction of railways and in the rolling stock and structures therefor. (Patented by Charles Denton Abel.)
LOADER, JOHN - - -	3271	26th Oct. 1868	Rotary engines.
LOBDELL, GEORGE GRANVILLE	3472	14th Nov. 1868	Railway wheels. (Patented by John Henry Johnson.)
LÖBNITZ, HENRY CHRISTIAN -	160	17th Jan. 1868	Apparatus for propelling ships or other vessels.
LOCKHART, MILES - - -	3812	15th Dec. 1868	Improved means or apparatus for ventilating, chiefly applicable to chimneys.
LODDÉ, ARTUS CLAUDE, junr.	1449	4th May 1868	An improved process of applying a coating of silver upon any animal, vegetable or mineral substance. (Patented by William Edward Gedge.)
LODGE, JOHN - - -	3832	2nd Nov. 1868	Looms for weaving.
LODGE, WILLIAM BERRY -	1580	14th May 1868	Manufacture of felt hats. (Patented by William Edward Newton.)
LOE, WILLIAM CLARK - -	669	27th Feb. 1868	Means of closing or stoppering bottles and vessels for containing aerated and other liquids or fluids.
LOMAX, HENRY - - -	2922	23rd Sept. 1868	Construction of sewing-machines or machines used for the sewing of woollen, cotton, silk or other fabrics, or in the making of garments or parts of garments therefrom, or other like work.
LONG, BURGESS - - -	2121	2nd July 1868	Carts. (Patented by Arthur Floyd Robertson.)

[Lon]

## AND APPLICANTS FOR PATENTS OF INVENTION.

[Lon]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LONG, CÉSAR - - - -	24	3rd Jan. 1868	A new or improved mode and apparatus for eliminating a portion of the azote in furnaces and fire-places, and for utilizing the oxygen and hydrogen of water, as facilitators of combustion and as fuel, or as reducers and in some cases as decarburators. (Communicated by Charles Louis Klein and Jules Vallée.)
LONG, JOHN JEX - - -	218	21st Jan. 1868	Machinery or apparatus to be used in the manufacture of matches or other similar articles.
LONG, JOHN JEX - - -	1401	29th April 1868	Machinery, processes and apparatus to be used in the manufacture of matches and other similar articles.
LONG, JOHN JEX - - -	2642	25th Aug. 1868	Improvements in reducing and cutting or dividing timber, and in the machinery or apparatus connected therewith.
Longbottom, Charles Hin- [DLE.]	414	7th Feb. 1868	Certain improvements in or applicable to machinery for spinning, twisting, and winding fibrous substances, and to looms for weaving.
Longbottom, Christopher -	414	7th Feb. 1868	Certain improvements in or applicable to machinery for spinning, twisting and winding fibrous substances, and to looms for weaving.
Longfellow, Thomas - -	1866	6th June 1868	Looms for weaving.
Longueuil, Charles James [Irwin Grant, Baron de.]	1631	19th May 1868	Construction of pipes for smoking. (Patented by Edward Primerose Howard Vaughan.)
Loomis, Kellogg Hubbard -	1581	14th May 1868	Steam-engines. (Patented by William Edward Newton.)
Lorberg, William - - -	3149	14th Oct. 1868	An improved process of treating cotton seed and utilizing the refuse resulting therefrom.
LORD, JAMES - - - -	1913	11th June 1868	Improvements in applying soap, oil or similar materials to cotton, wool and other fibrous substances requiring such treatment in their preparation for spinning, and in machinery or apparatus connected therewith.
LORD, JOHN - - - -	559	19th Feb. 1868	Apparatus for coupling and uncoupling railway carriages and vehicles.
LORD, WILLIAM BARRY - -	1738	26th May 1868	Portable filters.
LORKIN, JEREMIAH - - -	2903	21st Sept. 1868	Coffee pots, tea pots and other similar vessels.
LORKIN, JEREMIAH - - -	3207	20th Oct. 1868	Pipes for smoking tobacco.
LOSSEN, JOSEPH THEODOR -	1741	26th May 1868	An improved regulator or governor for steam and other engines. (Patented by Francis Wirth.)
LOUD, ALFRED COLBURN -	3465	14th Nov. 1868	Propelling vessels. (Patented by Henry Edward Newton.)
LOUGHTON, GEORGE RICHARD [VEVERS.]	2350	27th July 1868	A new or improved material for the manufacture of bosses for flax spinning machinery.
LOUF, MICHEL - - - -	1685	21st May 1868	Differential gearing applicable to lifting jacks, cranes, windlasses and other purposes. (Patented by Alexander Melville Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LOUVEL, ALPHONSE - -	2706	2nd Sept. 1868	A new and improved process for regenerating certain alimentary substances, and improvements in apparatus connected therewith. (Patented by Henri Adrien Bonneville.)
LOVE, JOHN CHARLES - -	1043	26th March 1868	Lamps for burning liquid hydrocarbons. (Patented by John Henry Johnson.)
LOVE, WILLIAM HENRY - -	1043	26th March 1868	Lamps for burning liquid hydrocarbons. (Patented by John Henry Johnson.)
LOW, JAMES FAIRWEATHER -	683	28th Feb. 1868	Apparatus for preparing jute and similar fibrous materials.
LOW, WILLIAM - - -	3486	16th Nov. 1868	Suspension bridges.
LOWBER, DANIEL COLE -	1346	24th April 1868	An improved wire tie for securing bales of cotton or woollen goods and other merchandise.
LOWE, DAVID - - -	3151	14th Oct. 1868	Apparatus for generating and burning the vapour of hydrocarbon liquids. (Patented by William Robert Lake.)
LOWMAN, HARVEY LESTER -	1475	5th May 1868	Machinery for forming pick-axes and other tools. (Patented by William Edward Newton.)
LOWMAN, HARVEY LESTER -	3192	19th Oct. 1868	Manufacture of gun barrels, vices, and various kinds of tools and instruments in which the handles are secured in open eyes. (Patented by William Edward Newton.)
LOWNDES, ROBERT GILLIES -	1174	7th April 1868	Improvements in finishing textile and other fabrics, and in the machinery or apparatus employed therefor.
LOWREY, ROBERT ORPHEUS -	818	9th March 1868	Improvements in the treatment of fibrous materials for the manufacture of various articles, and in the means for rendering the same fire and water proof. (Patented by William Robert Lake.)
LOWRY, GEORGE - - -	2765	8th Sept. 1868	Construction of heckling and carding machines.
LOWRY, GEORGE - - -	3922	23rd Dec. 1868	Improvements in bushes or ferrules for casks and other purposes, and for improvements in fixing the same.
LOWTHER, JOSEPH WILSON -	73	8th Jan. 1868	Lubricating tallow cups.
LUBLINSKI, ROBERT - -	1479	6th May 1868	Fasteners for the tips of umbrellas and parasols.
LUCAS, THOMAS - - -	2917	23rd Sept. 1868	Preparation of wool to be felted.
LUCAS, THOMAS - - -	3369	6th Nov. 1868	An improved method of fastening railway and other carriage doors.
LUCAS, THOMAS PALMER -	3369	6th Nov. 1868	An improved method of fastening railway and other carriage doors.
LUCOP, CHARLES - - -	186	18th Jan. 1868	Manufacture of meat and other biscuits.
LÜDECKE, FERDINAND - -	2911	22nd Sept. 1868	An improved axle-box for railway-carriage and other similar axles. (Patented by William Lloyd Wise.)
LÜDEKE, JOHANN ERNST [FRIEDRICH.	1273	18th April 1868	Machinery for obtaining motive-power.
LÜDEKE, JOHANN ERNST [FRIEDRICH.	2348	27th July 1868	Means of and apparatus for obtaining and applying motive-power. (Patented by Arthur James Thorman.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LUDLOW, EDWIN - - -	3182	17th Oct. 1868	Central-fire cartridges for breech-loading fire-arms.
LUMLEY, EDWIN - - -	1974	18th June 1868	An improved machine for the manufacture of pills.
LUMLEY, JOHN - - -	1974	18th June 1868	An improved machine for the manufacture of pills.
LUMLEY, THOMAS - - -	3493	17th Nov. 1868	Chimney pots.
LUND, LAURENTIUS ANDREAS [WALDEMAR.]	3885	21st Dec. 1868	Manufacture of brooches, buttons, solitaires and other articles of jewellery or ornament.
LUND, WILHELM - - -	1270	18th April 1868	Machines for turning off cross head wrist pins, crank pins and similar work. (Communicated by Theodore A. Goff.)
LUNGE, GEORGE - - -	2310	23rd July 1868	Manufacture of iron and steel.
LUNN, HENRY - - -	2521	12th Aug. 1868	Postal sample bags or envelopes.
LUPTON, ARNOLD - - -	2658	27th Aug. 1868	Certain improvements in boilers or generators for steam.
LÜTHY, ROBERT - - -	1781	30th May 1868	Construction and mode of working hydrostatic presses and hydraulic machinery.
LYALL, JAMES - - -	1042	26th March 1868	Looms for weaving.
LYMAN, DAVID - - -	1446	2nd May 1868	Improvements in buckets and other vessels of wood of analogous form, and in means for producing the same. (Patented by William Robert Lake.)
LYNCH, THOMAS - - -	3800	14th Dec. 1868	A new or improved system for preventing collisions on railways.
LYNDON, GEORGE FREDERICK	860	13th March 1868	Improvements in rotating shafts and axles and their bearings, and in the means of lubricating the same.
LYNGBYE, ADOLPH - - -	2983	29th Sept. 1868	An improvement in the manufacture of boots and shoes. (Patented by Alfred Vincent Newton.)
LYON, LOUIS ISAAC - - -	2096	30th June 1868	Breech loading fire arms and cartridges. (Patented by Alexander Melville Clark.)
LYSTER, JOHN LIONEL - - -	3740	8th Dec. 1868	Kilns for calcining limestone, ores and minerals.
LYTHGOE, THOMAS - - -	640	26th Feb. 1868	Improvements in the construction of walls, floors and roofs for buildings in which concrete and iron are used, and in apparatus employed therein.
LYTTLE, WILLIAM ALEXANDER	848	12th March 1868	Means and apparatus for supplying boilers with water.
LYTTLE, WILLIAM ALEXANDER	878	14th March 1868	Means and apparatus for closing and securing boxes, bags and other packages.
LYTTLE, WILLIAM ALEXANDER	3129	13th Oct. 1868	Electro-telegraphic conductors and the batteries connected therewith.
LYTTLE, WILLIAM ALEXANDER	3272	26th Oct. 1868	Electro-telegraphic instruments.
LYTTLE, WILLIAM ALEXANDER	3556	23rd Nov. 1868	Electro-telegraphic apparatus.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
<b>M.</b>			
MABSON, JOHN - - -	2178	5th July 1868	Apparatus for propelling persons in the water.
MABSON, JOHN - - -	2374	29th July 1868	An improved cinder sifter and shovel combined.
MABSON, JOHN - - -	2992	30th Sept. 1868	Candlesticks.
McADAM, WILLIAM - - -	2989	28th Sept. 1868	Improvements in arrangements or apparatus for facilitating omnibus traffic, the said improvements being also applicable otherwise and relating to tramways, wheels and carriages.
McALLUM, CHARLES OCTAVIUS.	2793	10th Sept. 1868	Utilization of the alkaline, neutral and saline salts contained in the mother-liquors or weak alkali resulting from the manufacture of crystals of soda or other alkaline salts.
McCALL, JOHN - - -	590	22nd Feb. 1868	An improved mode or process of preserving meat.
McCARTER, JOHN WALKER -	694	29th Feb. 1868	Means or apparatus for heating the feed water of steam-engine boilers.
MACCLELLAND, JOHN ALEXANDER.	536	18th Feb. 1868	An improved material for the base of artificial teeth and for other purposes, and also an improved construction of mould for forming dental plates. (Patented by William Edward Newton.)
McCRURY, WILLIAM BARKER	3687	4th Dec. 1868	An improved machine for cutting edible roots. (Patented by William Robert Lake.)
McCULLOCH, GILBERT - -	2071	27th June 1868	Thread polishing machines.
McCULLOCH, JAMES - - -	1126	3rd April 1868	Improvements in utilising old or waste tarpaulin, in the manufacture of grease and other useful products, and in apparatus therefor.
McCURD, CLAVERHOUSE ALFRED.	305	29th Jan. 1868	Sewing-machines.
McCURD, CLAVERHOUSE ALFRED.	2358	28th July 1868	Sewing-machines.
McDERMOTT, CHARLES -	977	23rd March 1868	An improved indelible pencil for marking linen and other fabrics.
McDERMOTT, JOHN - - -	1979	18th June 1868	Improvements in dressing flax, and in drawing, roving and spinning flax and tow, and in apparatus to be used for these purposes. (Patented by Thomas Comings Hide.)
McDONALD, JOHN - - -	528	18th Feb. 1868	Kilns and apparatus employed in the manufacture of bricks. (Patented by William Robert Lake.)
MACDONALD, JOHN CAMERON	3470	14th Nov. 1868	Improvements in the manufacture of stereotype printing surfaces, and in machinery for printing and receiving sheets of paper as they come from the printing machine, and also for cutting into sheets rolls of paper.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[McK]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
McDONELL, DONALD L. -	1318	22nd April 1868	Paddle-wheels for vessels. (Patented by William Edward Newton.)
McDONNELL, EUGENE -	1392	28th April 1868	An impervious concrete or cement.
McDOUGALL, ARTHUR -	270	25th Jan. 1868	Apparatus for burning, calcining or roasting sulphur, ores and other materials.
McDOUGALL, ARTHUR -	3506	18th Nov. 1868	Manufacture of phosphatic manures and sulphate of ammonia.
McEVOY, HENRY -	51	7th Jan. 1868	Fastenings for drapery articles of dress or wearing-apparel.
McFARLAND, DAVID -	1817	3rd June 1868	Railway trucks or vehicles. (Patented by John Henry Johnson.)
McFARLANE, JOHN -	2503	11th Aug. 1868	Rollers for paper-making machines.
McGHIE, JAMES -	1284	20th April 1868	Apparatus for spinning or twisting.
McGILL, GEORGE W. -	442	8th Feb. 1868	Split spikes. (Patented by William Robert Lake.)
McGLASHAN, ALEXANDER -	1009	25th March 1868	Improved machinery or apparatus for mashing substances employed in the making of fermented liquors.
McGLASHAN, JAMES -	3523	20th Nov. 1868	Apparatus for untwisting ropes.
McGRATH, JAMES -	3520	19th Nov. 1868	Skirts.
McGREGOR, ALEXANDER -	2739	5th Sept. 1868	Certain improvements in agricultural implements known as reaping and mowing machines.
McGREGOR, WILLIAM -	2672	28th Aug. 1868	Construction of telegraph and signal posts.
McHARDY, ROBERT -	3397	9th Nov. 1868	An improved implement for hoeing land and removing weeds or superfluous plants therefrom.
McILWHAM, JAMES -	1495	7th May 1868	Power looms.
MACIVOR, DUNCAN CAMPBELL	1147	4th April 1868	Improvements in propelling ships and in the means or apparatus employed therefor.
McKEAN, JAMES ASBURY -	1183	8th April 1868	Machinery for cutting and working rocks and other hard substances, chiefly designed for mining, tunnelling and other like operations. (Patented by William Robert Lake.)
McKEAN, JAMES ASBURY -	2422	1st Aug. 1868	Machinery for manufacturing metallic eye-lets. (Communicated by William Rudolphus Landfear.)
McKEAN, JAMES ASBURY -	3876	21st Dec. 1868	Machinery for cutting and working rocks and other hard substances, chiefly designed for mining, tunnelling and other like operations. (Patented by William Robert Lake.)
McKEAN, JOHN -	1402	29th April 1868	Manufacture or preparation of materials for sizing or dressing yarns and textile fabrics.
McKELLEN, ROBERT DUNSEITH	388	5th Feb. 1868	Certain improvements in machinery or apparatus to be employed in the manufacture of cotton and other balls.
McKNIGHT, ALEXANDER -	425	8th Feb. 1868	A new or improved powder or composition for cleaning and polishing articles made of steel, iron, copper, brass or other metals.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MACLELLAN, WALTER - -	3646	30th Nov. 1868	Improvements in fixing the rails of railways and manufacturing hollow metallic keys for so doing, and in the modes, means and mechanism for these purposes.
MCLEOD, JOHN - - -	629	25th Feb. 1868	Apparatus for washing yarns.
MCLEOD, JOHN - - -	1968	17th June 1868	Apparatus for dyeing yarns.
MCMAHON, PATRICK - -	1176	7th April 1868	Destroying the decaying principle in animal substances and articles of food and organic matter, by means of a railroad atmospheric process. (Communicated by Matilda Webb and Charles Gavan Duffy.)
MACMILLAN, ALEXANDER -	3092	8th Oct. 1868	Improvements in buttons or fastenings, and in the method of fixing buttons or fastenings to garments and other articles.
MACMILLAN, CATHERINE -	3226	21st Oct. 1868	Improvements in protecting iron ships and other submerged surfaces from corrosion and marine growths, and in compositions to be so employed. (Communicated by William Jardine Combe MacMillan.)
MACMILLAN, WILLIAM JAR- [DINE COMBE.	3226	21st Oct. 1868	Improvements in protecting iron ships and other submerged surfaces from corrosion and marine growths, and in compositions to be so employed. (Patented by Catherine MacMillan.)
MCMINNIES, JOHN GORDON -	2386	30th July 1868	Construction of mills or manufactories, warehouses and other buildings.
McMULLEN, OSMOND HENRY	90	9th Jan. 1868	An improved mashing machine.
MCNAUGHT, WILLIAM - -	862	13th March 1868	Improvements in steam-engines, steam-boiler and other furnaces, and in apparatus for heating feed water.
MCNAUGHT, WILLIAM - -	2787	10th Sept. 1868	Improvements in steam-engines, steam-boiler and other furnaces, and in apparatus for heating feed-water.
MCNIEL, ANDREW - - -	2136	4th July 1868	An improved process for the manufacture of salts of ammonia from ammoniacal gas liquor.
MCNIEL, ANDREW - - -	3484	16th Nov. 1868	An improved process for the manufacture of salts of ammonia from ammoniacal gas liquor.
MACABIES, PAUL NARCISSE [JOSEPH.	2406	31st July 1868	Water-feeding apparatus for boilers.
MACAULAY, HENRY - -	3105	9th Oct. 1868	Manufacture of cast iron cisterns, lutes and covers.
MACAULAY, THOMAS ANTONEY	408	6th Feb. 1868	Improvements in or applicable to certain sewing-machines. (Patented by George Francis Bradbury and Thomas Chadwick.)
MACAULAY, THOMAS ANTONEY	3436	12th Nov. 1868	Sewing-machines. (Patented by Peter Joel Livsey.)
MACCARTHY, SAXON JOHN -	3114	10th Oct. 1868	A new construction of fastening for securing boots and shoes and other articles of dress or wear, such fastenings being also applicable for closing or securing receptacles, wrappers or other flexible articles.
MACDERMOTT, MARTIN - -	2686	19th Sept. 1868	A new street-lamp reflector.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MACDONA, GEORGE - -	961	21st March 1868	Means and appliances for conveyance, transport and locomotion. (Communicated by Casimir Comte de Mankowski.)
MACFARLANE, JAMES LAIRD -	2236	16th July 1868	Shirt fronts.
MACFARLANE, JOHN - -	3540	21st Nov. 1868	Washing machines.
MACGREGOR, DONALD ROBERT	1470	5th May 1868	Manufacture of paint for the protection of iron and other metals from the destructive influence of sea water, and for the prevention of fouling. (Communicated by Hans Wilhelm Matzen.)
MACHIR, JOSEPH SPANGLER -	2395	30th July 1868	An improved flame spreader and aerator for gas and other burners. (Patented by John Henry Johnson.)
MACINTOSH, JOHN - - -	609	24th Feb. 1868	Manufacture and application of elastic goods or fabrics.
MACINTOSH, JOHN - - -	1065	28th March 1868	Boots and shoes.
MACINTOSH, JOHN - - -	2547	15th Aug. 1868	Submarine telegraphy.
MACINTOSH, JOHN - - -	2920	23rd Sept. 1868	Application of elastic fillets, cords or bands to boots and shoes and other articles of wearing-apparel.
MACKIE, ALEXANDER - - -	1984	19th June 1868	Certain improvements in machinery or apparatus for "setting" and distributing type, and in apparatus for preparing certain materials to be employed therewith.
MACKIE, ALEXANDER - - -	3728	8th Dec. 1868	Type composing and distributing machinery or apparatus.
MACKIE, JOHN - - -	1936	13th June 1868	Apparatus applicable to steam-boilers, for utilizing the waste heat and for economising fuel.
MACKIE, JOHN - - -	2037	24th June 1868	Apparatus applicable to steam-boilers, for utilizing the waste heat and for economising fuel.
MACKIE, MATTHEW - - -	1936	13th June 1868	Apparatus applicable to steam-boilers, for utilizing the waste heat and for economising fuel.
MACKIE, MATTHEW - - -	2037	24th June 1868	Apparatus applicable to steam-boilers, for utilizing the waste heat and for economising fuel.
MACKIE, ROBERT - - -	2197	11th July 1868	Caps or bonnets.
MACKROW, GEORGE COLBY -	639	26th Feb. 1868	Construction of batteries for ships of war.
MACLEAN, WALTER - - -	1769	29th May 1868	A new or improved process to be used for producing or depicting designs on textile fabrics.
MACNEILL, SIR JOHN - - -	902	17th March 1868	Construction of indicating apparatus for showing the number of passengers carried in public conveyances during each journey and the amount of fares paid.
MACNEILL, SIR JOHN, Knight	3386	7th Nov. 1868	Improvements in cases or holders for containing postage or other adhesive stamps, to facilitate their application to letters or other documents, and in apparatus for damping such letters or documents.
MACNEILL, THOMAS TELFORD	1342	24th April 1868	Apparatus for indicating the distances travelled by cabs and other vehicles, also applicable to the indicating of the fares payable for the distance travelled.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MACRAE, ALEXANDER [SEPTIMUS.]	1728	26th May 1868	An improved process and composition for removing ink and colours from paper, and dirt from rags and other paper stock. (Communicated by Joseph A. Veazie.)
MACVAY, WILLIAM WILSON -	2705	1st Sept. 1868	An improvement in glass furnaces.
MADDICK, GEORGE WILLIAM -	2470	7th Aug. 1868	Combining forks and spoons.
MADE, JOHANNES MARINUS [VAN DER.]	1166	7th April 1868	Apparatus for the consumption of smoke. (Patented by Henry James Ditmars.)
MADGE, EDWARD - - -	3423	11th Nov. 1863	Mode of and apparatus for manufacturing tin, terne and other coated plates.
MADGE, HENRY JOSEPH -	2984	29th Sept. 1868	Conversion of tin plate shearings into tin plates.
MAHON, PATRICK Mc - -	1176	7th April 1868	Destroying the decaying principle in animal substances and articles of food and organic matter, by means of a railroad atmospheric process. (Communicated by Matilda Webb and Charles Gavan Duffy.)
MAIN, JAMES ANDREW RAMSAY	3339	3rd Nov. 1868	Improvements in iron sheds for agricultural produce and applicable otherwise.
MAINWARING, EDWARD [THOMAS.]	326	30th Jan. 1868	An improved bale or metallic tie.
MAISTRE, JULES - - -	1440	2nd May 1868	An improved process for dyeing wool.
MÂITRE, EDOUARD - - -	1435	2nd May 1868	Apparatus for propelling vessels. (Patented by Henri Adrien Bonneville.)
MALACRIDA, JULES - -	3489	17th Nov. 1868	A new and improved instrument for prognosticating the weather. (Patented by Henri Adrien Bonneville.)
MALAM, WILLIAM - - -	1283	20th April 1868	Improvements in the manufacture of gas and in apparatus employed in such manufacture, part of the invention being also applicable to the manufacture of retorts, retort casings, crucibles and melting pots for various useful purposes.
MALET, HENRY CHARLES [EDEN.]	3223	21st Oct. 1868	Projectiles for small arms and ordnance.
MALIN, GEORGE - - -	3206	20th Oct. 1868	An improved composition to be used for "filling up" the bodies of carriages and other substances previous to receiving the colouring matter.
MALSTER, KEZIA - - -	1940	13th June 1868	An improved mixture or compound for cleaning gloves and other articles.
MANBRÉ, ALEXANDRE - -	246	23rd Jan. 1868	Steam-boilers.
MANDET, PIERRE JOSEPH [ALEXIS.]	3602	26th Nov. 1868	An improved preparation or compound for sizing and dressing threads and fabrics. (Patented by Alexander Melville Clark.)
MANFIELD, MOSES PHILIP -	3090	8th Oct. 1868	Improvements applicable to the soles of boots, shoes, clogs and other coverings for the feet.
MANGNALL, JOHN - - -	3547	23rd Nov. 1868	Chairs, cradles, couches and beds.
MANKOWSKI, CASIMIR COMTE [DE.]	961	21st March 1868	Means and appliances for conveyance, transport and locomotion. (Patented by George Macdonald and Osborne Hilliard.)
MANLY, JOHN, the younger -	722	3rd March 1868	Improvements in those kinds of nails which are used upon furniture, saddlery and trunks, and for other useful and ornamental purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MANNERS, WILLIAM - -	3841	17th Dec. 1868	An irreversible passengers' railway danger signal.
MANNING, EDWARD BALDWIN	3204	20th Oct. 1868	Tea and coffee pots. (Patented by Edward Thomas Hughes.)
MANSFIELD, WILLIAM - -	3496	17th Nov. 1868	Kilns and drying chambers or sheds to be used in the manufacture of bricks and other articles made of clay.
MANT, GEORGE - - -	370	3rd Feb. 1868	Stands or supports for lasts used in the manufacture of boots and shoes.
MANWARING, WILLIAM - -	1037	26th March 1868	Construction of reaping and mowing machines.
MANWARING, WILLIAM - -	1622	18th May 1868	Lawn mowing-machines.
MANWARING, WILLIAM - -	3396	9th Nov. 1868	Reaping-machines.
MANWARING, WILLIAM [GEORGE.	3757	10th Dec. 1868	Sewing-machines.
MARCH, WILLIAM, junior -	304	28th Jan. 1868	Lasts for boots and shoes.
MARCHANT, ROBERT MUDGE -	3168	16th Oct. 1868	Permanent way of railways.
MARECHAL, LOUIS JULES -	3676	3rd Dec. 1868	Locks.
MARIE, GEORGES DE SAINTE -	1574	14th May 1868	An improved mode of coloring or ornamenting capsules, tubes and metallic foil.
MARION, AUGUSTIN - - -	1206	11th April 1868	Photography. (Patented by Clinton Edgcumbe Brooman.)
MARKHAM, CHARLES - - -	3451	13th Nov. 1868	Apparatus for moulding pipes and other cylinders.
MARKHAM, CHARLES - - -	3453	13th Nov. 1868	Improvements in apparatus for moulding and drying moulds for pipes and other cylinders, and in withdrawing them from their moulds.
MARLIN, PAUL - - -	1430	1st May 1868	An improved process for transforming hydrocarbon oils into gas for illuminating and heating purposes.
MARRIAN, HENRY - - -	2852	16th Sept. 1868	Weighing machines.
MARSDEN, HARRY - - -	1571	14th May 1868	Means or apparatus employed in the process of manufacturing wadding or felted fabrics.
MARSDEN, HENRY LOUIS [DELABENE.	3695	4th Dec. 1868	Improvements in machinery or apparatus for toning, fixing and washing photographic prints, which improvements are also applicable to rocking machinery or apparatus for other purposes.
MARSDEN, HENRY LOUIS [DELABENE.	3788	12th Dec. 1868	Improvements in the construction of framings and joints applicable to bridges, piers, roofs, vans for railways, and generally for carpentry, joinery, furniture and framing purposes, in wood, metal and other materials.
MARSDEN, JOSEPH - - -	1204	11th April 1868	Construction of beams or girders, floors and roofs for fireproof buildings.
MARSH, JOHN - - -	3961	29th Dec. 1868	Covering or capping bottles, jars and other surfaces.
MARSHALL, CHARLES - - -	1543	12th May 1868	Envelopes. (Patented by George Alfred Henry Dean.)
MARSHALL, CHARLES KIM- [BALL.	3302	28th Oct. 1868	Horse collars. (Patented by Charles Kelson.)

Mar]

## ALPHABETICAL INDEX OF PATENTEES

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MARSHALL, DAVID - -	3058	7th Oct. 1868	An improved packing for the tubes of surface condensers and other similar purposes.
MARSHALL, JAMES FOWLE [BALDWIN.	2839	15th Sept. 1868	An improved machine for hulling and cleaning or polishing coffee, rice and other grain. (Patented by George Davies.)
MARSHALL, WILLIAM - -	1458	4th May 1868	Machinery or apparatus employed in the clipping of lace and other fabrics.
MARSON, GERVASE - -	1358	25th April 1868	Certain improvements in the method of and means for retaining the outer ends of tapes, ribbons and other similar narrow fabrics, and paper.
MARSTON, WILLIAM BEALE -	439	8th Feb. 1868	Lamps and apparatus for lighting railway carriages.
MARTEL-DELESPIERRE AU- [GUSTE.	3280	26th Oct. 1868	Means of and machinery for scouring wool. (Patented by Alexander Melville Clark.)
MARTIN, ALEXANDER - -	1129	3rd April 1868	Bonnet shapes.
MARTIN, CÉLESTIN - -	2019	23rd June 1868	Certain improvements in machinery for carding and spinning wool and other fibrous materials. (Patented by Henri Adrien Bonneville.)
MARTIN, CHARLES - -	1205	11th April 1868	Improvements in the treatment and reduction of titaniferous iron ores for the manufacture of iron, and in the application of slag or cinder produced in such processes.
MARTIN, CHARLES - -	2834	25th Aug. 1868	Manufacture of iron for plating vessels and fortifications, and the fastenings connected therewith.
MARTIN, FRIEDERICH VON -	2305	22nd July 1868	Breech-loading fire-arms. (Patented by Clinton Edgumbe Brooman.)
MARTIN, GEORGE - -	919	18th March 1868	Improvements in the treatment of mixed fabrics and in the extraction of wool therefrom, and in the construction of apparatus to be used for such treatment, which apparatus is also applicable to other purposes.
MARTIN, GEORGE - -	2294	22nd July 1868	Improvements in the manufacture of extract wool, and in the process and apparatus employed in destroying the vegetable material in mixed fabrics, which apparatus is applicable for other purposes.
MARTIN, JAMES - -	2676	29th Aug. 1868	Extracting pitch or similar articles from wool or similar materials.
MARTIN, JOHN COWDERY -	2696	31st Aug. 1868	Improvements in the treatment of cartilaginous matter of bone, for the manufacture of gelatine, which improvements are also applicable to the treatment of other substances from which gelatine is manufactured.
MARTIN, MELITON - -	2145	6th July 1868	Locomotive engines. - (Patented by George Davies.)
MARTIN, ROBERT - -	508	15th Feb. 1868	An improvement in treating and deodorizing oils.
MARTIN, ROBERT - -	2840	15th Sept. 1868	An improved apparatus for scraping and otherwise cleaning boots and shoes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MARTIN, SAMUEL MANLEY -	315	29th Jan. 1868	Improvements in electrical train intercommunication, parts of which invention are applicable to electro-magnetic and other electrical apparatus.
MARTIN, SAMUEL MANLEY -	3369	28th July 1868	Improvements in train intercommunication, parts of which invention are applicable to electro-magnetic and electric telegraph apparatus.
MARTIN, THOMAS - - -	3478	16th Nov. 1868	Improvements in the means for supplying ammunition and other objects to troops under action, and in cars or vehicles employed for that purpose, which are also applicable to other purposes, also a mode of packing such ammunition.
MARTINEAU, FRANCIS EDGAR	3374	6th Nov. 1868	Improvements in hasps for fastening doors and gates and for other like purposes, which improvements may also be applied to hinges.
MARTINOT, BENJAMIN - -	1431	1st May 1868	Machinery or apparatus for burling and shearing textile fabrics. (Patented by John Henry Johnson.)
MARTINOT, FERDINAND - -	1431	1st May 1868	Machinery or apparatus for burling and shearing textile fabrics. (Patented by John Henry Johnson.)
MASEY, PHILIP EDWARD -	412	6th Feb. 1868	Machinery or apparatus for obtaining aerial locomotion, part of such improvements being applicable to rotary steam-engines and boilers for other purposes.
MASKALL, LUKE - - -	2004	20th June 1868	Machinery for cutting or worming screws.
MASON, JOSEPH ANTHONY -	1681	21st May 1868	Apparatus for propelling vessels.
MASON, JOSHUA - - -	1598	15th May 1868	Liquid meters. (Patented by Alfred Vincent Newton.)
MASON, JULES - - -	259	25th Jan. 1868	An improved composition to be used as fuel for household purposes, and the method of preparing, forming or manufacturing the same.
MARSAS, FRANÇOIS ANTOINE [EDMOND GUIRONNET DE.	1142	4th April 1868	Machinery for cleaning cotton seeds.
MASSELON, URSEN ADRIEN -	2750	7th Sept. 1868	Kilns for burning bricks, lime, pottery and other articles or matters.
MASSEY, JOHN EDWARD -	3880	21st Dec. 1868	Machines for taking soundings (known as Massey's sounding machines).
MASSON, ANDREW - - -	3708	5th Dec. 1868	Steam-engines.
MASTERMAN, WILLIAM [FAIRLES.	2511	12th Aug. 1868	Manufacture of iron and steel.
MASY, JOSEPH DE - - -	2853	16th Sept. 1868	Improvements in cases for holding railway tickets, and in mechanism for withdrawing railway tickets from the said cases.
MAT, FRANÇOIS ALEXANDRE [LE.	3131	13th Oct. 1868	Construction of revolving and repeating fire-arms.
MATHEI, IGNACE - - -	1451	4th May 1868	Improved apparatus for warehousing petroleum, mineral or essential oils and other liquids.
MATHER, COLIN - - -	947	20th March 1868	Machinery and apparatus for opening and cleaning wool and other fibrous substances. (Communicated by Charles Grandison Sargent.)



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## ALPHABETICAL INDEX OF PATENTEES

[Maw]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MATHER, COLIN - - -	2068	27th June 1868	An improved mode of excavating or loosening and removing soil and other deposits, for forming, deepening and cleansing harbours and docks, and for other purposes.
MATHER, COLIN - - -	3803	15th Dec. 1868	Machinery for ginning, burring and cleaning cotton and other fibrous substances. <i>(Communicated by Charles Grandison Sargent.)</i>
MATHER, GEORGE RADFORD -	2208	13th July 1868	Mills for grinding or mixing colors or other matters.
MATHER, WILLIAM - - -	2165	8th July 1868	Certain improvements in agricultural apparatus termed "chaff cutters."
MATHESON, JOHN, junior -	3480	16th Nov. 1868	Improvements in dyeing and washing yarns and in apparatus therefor.
MATTEI, FELIX - - -	1230	14th April 1868	Improvements in the manufacture of ceramic tesserae, and in the employment thereof for mural and other decorative purposes. <i>(Patented by Edward Primerose Howard Vaughan.)</i>
MATTHIESEN, AUGUSTUS -	3758	10th Dec. 1868	Treatment of wood capable of yielding materials suitable for the manufacture of paper.
MATTON, CARL HENRIK JULIUS.	2790	10th Sept. 1868	Improvements applicable to stockings and other coverings for the feet.
MATZEN, HANS, WILHELM -	1470	5th May 1868	Manufacture of paint for the protection of iron and other metals from the destructive influence of sea water, and for the prevention of fouling. <i>(Patented by Donald Robert Macgregor and Peter Taysen.)</i>
MAUDE, JOSEPH - - -	3350	4th Nov. 1868	Machinery for spinning and doubling fibrous materials.
MAUDSLAY, WILLIAM - - -	3213	20th Oct. 1868	Means and apparatus to enable boilers and furnaces to heat expeditiously and consume their smoke, and generate steam more quickly than heretofore.
MAUGHAN, BENJAMIN WADDY	3917	23rd Dec. 1868	Apparatus for the heating of water and other liquids, applicable for baths and other purposes.
MAURICE, JOSEPH - - -	1049	27th March 1868	Means or method of producing optical illusions.
MAURICE, SAMUEL SOLOMON -	2057	26th June 1868	An improved fastening for neckties, scarfs and other articles. <i>(Communicated by Simon Hayem, aimé.)</i>
MAURIZE, JEAN BAPTISTE [ANTOINE.	2506	11th Aug. 1868	Permanent way of railways. <i>(Patented by John Henry Johnson.)</i>
MAURY, JAMES - - -	52	7th Jan. 1868	Connecting the ends of metallic straps applied to bales of cotton and other merchandize.
MAURY, THOMAS - - -	582	21st Feb. 1868	An improvement in certain descriptions of bristle brushes. <i>(Patented by Marc Antoine François Mennons.)</i>
MAW, GEORGE - - -	1861	6th June 1868	Manufacture of garden tallies or plant labels or markers.
MAW, JOHN HORNEY - - -	857	13th March 1868	Lamps.

[Max]

## AND APPLICANTS FOR PATENTS OF INVENTION.

[Mel]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MAXFIELD, ARTHUR - -	751	4th March 1868	Sewing-machines.
MAXWELL, JAMES RILEY -	2831	15th Sept. 1868	Steam pumping machinery or engines. (Patented by Martin Benson.)
MAY, CHARLES WILLIAM -	12	1st Jan. 1868	Manufacture of metallic cartridges.
MAY, CHARLES WILLIAM -	2082	26th June 1868	Metallic cartridge shells and heads. (Patented by Alexander Horace Brandon.)
MAY, CHARLES WILLIAM -	2981	29th Sept. 1868	An improved watch-case spring. (Patented by Alexander Horace Brandon.)
MAYALL, THOMAS JEFFERSON	2151	7th July 1868	Manufacture of india-rubber soles for boots and shoes.
MAYALL, THOMAS JEFFERSON	2159	8th July 1868	Manufacture of gas tubing and other articles of india-rubber.
MAYALL, THOMAS JEFFERSON	2180	8th July 1868	Electric telegraph cables.
MAYALL, THOMAS JEFFERSON	2175	9th July 1868	Improvements in the treatment of india-rubber, gutta-percha or compounds thereof, and in the manufacture of type and other articles therefrom, for printing and other uses.
MAYER, CERF - - -	1214	11th April 1868	Apparatus for the preparation of carbonated or effervescent beverages. (Patented by Marc Antoine François Mençons.)
MAYER, CERF - - -	3178	17th Oct. 1868	Improvements in tourists' bottles and in stoppers for the same and other vessels, part of which improvements are applicable to locks or fastenings for boxes and to other like purposes.
MAYGROVE, JOHN FREDERICK	3620	27th Nov. 1868	Improvements in the mode of and in looms for weaving hair cloth and similar fabrics.
MAYHEW, HENRY - - -	3261	24th Oct. 1868	An improved button fastening.
MAYNARD, HENRY NATHAN -	3668	2nd Dec. 1868	Girders for bridges, viaducts, piers, jetties and buildings and other structures.
MAYNARD, MOSES SAVERY -	1302	22nd April 1868	Machinery for governing the speed of motive-power engines.
MAYNARD, MOSES SAVERY -	3889	19th Dec. 1868	Machinery for regulating the speed of motive-power engines.
MAYNES, JOHN - - -	2788	10th Sept. 1868	An improved self-acting arrangement of mechanism for supplying weft without stoppage to looms.
MAZET, FELIX - - -	3539	21st Nov. 1868	A combined tobacco pouch and cigarette former. (Patented by Charles Denton Abel.)
MEADE, HERBERT GEORGE [PHILLIP.	1024	25th March 1868	Improvements in fire-arms and in cartridges, projectiles and torpedoes.
MEADOWS, FRANCIS - -	3748	9th Dec. 1868	Machines for cutting strips of metal or other material, particularly applicable to cutting "brass rule" for use in printing.
MEAKIN, WILLIAM - -	3791	14th Dec. 1868	Certain improvements in the construction of adjustable lock-spindles and the fittings thereto.
MELDRUM, ROBERT - -	824	10th March 1868	Apparatus for raising water.
MELDRUM, ROBERT - -	949	20th March 1868	Steam-engines.
MELDRUM, ROBERT - -	2258	17th July 1868	Machinery or apparatus for raising and discharging fluids.
MELDRUM, ROBERT - -	3307	29th Oct. 1868	Improvements in an apparatus for the utilization of waste steam from steam cylinders, for the increase of power.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MELLEN, ABNER - - -	3980	31st Dec. 1868	Machinery for untwisting and separating the fibres of hair ropes. (Patented by William Robert Lake.)
MELLEN, ABNER, junior - -	3980	31st Dec. 1868	Machinery for untwisting and separating the fibres of hair ropes. (Patented by William Robert Lake.)
MELLING, JOHN WILLIAM -	458	11th Feb. 1868	Machinery for cutting or excavating coal and other minerals.
MENDELSON, LEOPOLD - -	467	11th Feb. 1868	An improved apparatus for saving life in cases of shipwreck. (Patented by William Edward Newton.)
MENDELSON, LEOPOLD - -	853	12th March 1868	Ballasting vessels. (Patented by William Edward Newton.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	582	21st Feb. 1868	An improvement in certain descriptions of bristle brushes. (Communicated by Thomas Maury.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	1155	6th April 1868	Apparatus for the transmission and reception of typographic or autographic telegrams. (Communicated by Henry Cook.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	1214	11th April 1868	Apparatus for the preparation of carbonated or effervescent beverages. (Communicated by Cerf Mayer.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	1419	30th April 1868	An improvement in planing, polishing, turning and other machine-tools or apparatus of like description. (Communicated by Henry Cook.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	3230	22nd Oct. 1868	An improved engine for raising and forcing water. (Communicated by Philip Syng Justice.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	3377	6th Nov. 1868	Mode of and apparatus for forming screw threads on wrought iron bolts. (Communicated by Alexis Belaieff.)
MERIC, JOSEPH - - -	3893	21st Dec. 1868	A novel bituminous composition termed "resinous bitumen." (Patented by William Edward Gedge.)
MERRETT, JOEL - - -	3858	18th Dec. 1868	Improvements in tinning pins and other small articles, and in machinery or apparatus to be used for that purpose.
MERRICK, JOHN VAUGHAN -	1919	12th June 1868	Miner's safety cages, lifts and other like hoisting apparatus. (Patented by John Henry Johnson.)
MERRICK, WILLIAM HENRY -	1919	12th June 1868	Miner's safety cages, lifts and other like hoisting apparatus. (Patented by John Henry Johnson.)
MERRILL, RUFUS SPAULDING -	2123	2nd July 1868	Construction of bridges. (Patented by John Henry Johnson.)
MERRY, DANIEL SAMUEL -	3586	25th Nov. 1868	Arm protectors.
MERZ, THEODORE - - -	3112	10th Oct. 1868	Improvements in calcining ores, minerals and other substances, and in furnaces therefor.
MESSENGER, THOMAS GOODE -	1675	21st May 1868	Fire-engines or double-action pumps.
MESSENGER, THOMAS GOODE -	2139	4th July 1868	Improvements in the construction and erection of buildings used for horticultural or other similar purposes, and in machinery or apparatus employed therein.
METCALF, THOMAS - - -	1896	6th June 1868	Looms for weaving.
METZ, AUGUSTUS DE - - -	588	22nd Feb. 1868	Commode pots or vessels to be used as waterclosets or for other purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
METZ, AUGUSTUS DE - -	1122	3rd April 1868	Commodos or vessels to be used as water-closets, expectorating utensils, or for other purposes.
MEUNIER, CHARLES - -	318	29th Jan. 1868	Disintegrating, scouring and cleansing raw wool and woollen fabrics. (Patented by John Henry Johnson.)
MICHAUD, PIERRE - - -	2809	11th Sept. 1868	Improvements in apparatus for weighing, and also in cranes or lifting apparatus combined with weighing apparatus. (Patented by Michael Henry.)
MICHEL, FRANÇOIS ALEXAN- [DRE VICTOR.	3956	29th Dec. 1868	Manufacture or production of printing surfaces.
MIDDLEMIST, ALFRED - -	274	27th Jan. 1868	An improved apparatus for increasing, regulating and controlling the heat and draught in stoves and other fireplaces.
MIDWOOD, GEORGE HARRISON	1994	20th June 1868	Improvements in the treatment of certain waste yarns or threads, and in the subsequent application thereof for the manufacture of woven fabrics.
MILBANK, ISAAC MORRIS -	2534	13th Aug. 1868	Breech loading fire-arms and cartridges.
MILES, DAWSON - - -	169	17th Jan. 1868	An improved mode of treating wood-veneer and forming therefrom sheets or cards for various purposes. (Patented by William Robert Lake.)
MILL, JOHN - - - -	3819	16th Dec. 1868	An improved method of heating press-plates.
MILLAN, ALEXANDER MAC -	3092	8th Oct. 1868	Improvements in buttons or fastenings, and in the method of fixing buttons or fastenings to garments and other articles.
MILLAN, CATHERINE MAC -	3226	21st Oct. 1868	Improvements in protecting iron ships and other submerged surfaces from corrosion and marine growths, and in compositions to be so employed. (Communicated by William Jardine Combe MacMillan.)
MILLAN, WILLIAM JARDINE [COMBE MAC.	3226	21st Oct. 1868	Improvements in protecting iron ships and other submerged surfaces from corrosion and marine growths, and in compositions to be so employed. (Patented by Catherine MacMillan.)
MILLARD, WILLIAM - - -	2455	6th Aug. 1868	Looms.
MILLER, GEORGE - - -	1194	9th April 1868	Improvements in the construction of railway wheels and in the axles and bearings for the same.
MILLER, IVON BRUCE - -	1734	26th May 1868	Manufacture of packing for steam-engines and other machinery. (Partly communicated by William Hartley Miller.)
MILLER, RICHARD KERR -	1509	8th May 1868	"Knotters" for straining paper pulp.
MILLER, WILLIAM - - -	2895	19th Sept. 1868	Apparatus for the manufacture of oakum, tow and similar materials.
MILLER, WILLIAM HARTLEY -	1734	26th May 1868	Manufacture of packing for steam-engines and other machinery. (Patented by Ivon Bruce Miller.)
MILLER, WILLIAM H. - -	3173	16th Oct. 1868	Sporting breech-loading fire-arms and cartridges for the same. (Patented by Charles Churchill.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MILLS, BENJAMIN JOSEPH [BARNARD.]	1218	13th April 1868	Bleaching, reviving and tinting white and colored feathers, and silk fabrics and goods. (Communicated by Achille Serre.)
MILLS, BENJAMIN JOSEPH [BARNARD.]	1674	21st May 1868	Letter clips, bill files and other similar clips or suspenders.
MILLS, BENJAMIN JOSEPH [BARNARD.]	2444	4th Aug. 1868	Harvesting machines. (Communicated by George Harding.)
MILLS, BENJAMIN RILEY - - -	3548	23rd Nov. 1868	Carding-engines for carding cotton and other fibrous materials.
MILLS, DANIEL - - -	2378	29th July 1868	Improvements in sewing-machines and in the means for heating the thread used in the same. (Patented by William Robert Lake.)
MILLS, JAMES PERRY - - -	3948	28th Dec. 1868	Rest pins or keys for pianofortes, harps and all other musical string instruments.
MILLS, MARK NIELD - - -	3548	23rd Nov. 1868	Carding-engines for carding cotton and other fibrous materials.
MILLS, RICHARD - - -	672	28th Feb. 1868	Machines for washing, wringing and mangling textile fabrics.
MILLS, THOMAS - - -	3480	14th Nov. 1868	Steam generators.
MILLWARD, JOHN - - -	172	18th Jan. 1868	Means and apparatus or machinery for propelling ships or vessels. (Communicated by Andrew Jackson Reynolds.)
MILLWARD, JOHN - - -	2774	9th Sept. 1868	Steam-boilers. (Communicated by Joseph Nason.)
MILLWARD, JOHN - - -	3775	12th Dec. 1868	Improvements in preserving meat and animal matter; and in apparatus employed for that purpose. (Communicated by Thomas Sim.)
MILNER, EDWARD - - -	1117	2nd April 1868	An improved method of producing white pigments from lead.
MILSTED, HENRY - - -	3595	25th Nov. 1868	An improved buckle or fastening especially applicable to belts, bands, straps, traces and thongs.
MILWARD, HENRY - - -	8	1st Jan. 1868	Needle cases. (Communicated by Theodore Givry.)
MINES, HENRY EDWARD - -	1749	27th May 1868	Improvements applicable to register-stoves or grates, for curing smoky chimnies and controlling the draught of air.
MINNIES, JOHN GORDON MC -	2386	30th July 1868	Construction of mills or manufactories, warehouses and other buildings.
MIROUDE-PICHARD, LOUIS -	291	28th Jan. 1868	Manufacture of candles. (Patented by Clinton Edgcumbe Brooman.)
MIRROR AND GLASS WORKERS	2880	18th Sept. 1868	Apparatus for grinding, smoothing and polishing glass, marble and other similar substances. (Patented by Edward Thomas Hughes.)
MITCHELL, CHARLES HYND- [MAN.]	1934	13th June 1868	Steam-engines.
MITCHELL, DAVID - - -	1964	17th June 1868	Manufacture of figured cloth.
MITCHELL, JOHN, junior -	341	31st Jan. 1868	Apparatus for marking or cutting woven fabrics into lengths such as are required for making sacks.
MITCHELL, JONATHAN - -	2034	24th June 1868	Furnaces.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MITCHELL, JOSEPH - -	1628	18th May 1868	Improvements in railway and other carriage springs, and in the machinery or apparatus for manufacturing the same.
MITCHELL, ROBERT BRIGHT- [MORE.	589	22nd Feb. 1868	An improved method for making plane irons, sheep shears and other edge tools.
MITCHELL, THOMAS - -	746	4th March 1868	Certain improvements in the manufacture of felt carpeting and in apparatus to be employed therein.
MITCHELL, WILLIAM - -	746	4th March 1868	Certain improvements in the manufacture of felt carpeting and in apparatus to be employed therein.
MITFORD, BERTRAM - -	1075	30th March 1868	Apparatus for communicating with deaf and dumb, or deaf or dumb persons.
MITTONNETTE, FREDERICK -	649	26th Feb. 1868	Furnace doors.
MOFFAT, WILLIAM P. - -	3164	15th Oct. 1868	Breech-loading volley-firing guns. (Patented by William Robert Lake.)
MOHR, CHARLES - - -	2555	15th Aug. 1868	Manufacture of cages, baskets, guards and other articles of wire work.
MOLE, CHARLES - - -	1688	22nd May 1868	Manufacture of boots.
MOLLARD, VICTOR - - -	1069	28th March 1868	An improved apparatus for moistening postage and other stamps to prepare them for application. (Patented by William Edward Gedge.)
MÖLLER, CARL SEVERIN -	863	13th March 1868	An improved portable side weapon adapted for the use of the army more particularly. (Communicated by Johann Linnemann.)
MOLLER, PETER CORFITZ -	272	25th Jan. 1868	An improved apparatus for heating, evaporating and decomposing water, oil and other substances. (Patented by Francis Wirth.)
MONESTIER, CHARLES - -	3970	30th Dec. 1868	Preparation of impermeable paper for manufacturing several fabrics or articles.
MONEY, GEORGE HENRY -	70	8th Jan. 1868	Improvements in breech-loading small arms, including pistols, and in the cartridges to be used therewith.
MONGIN, CHARLES - - -	3934	24th Dec. 1868	Rolling mills. (Patented by Charles Denton Abel.)
MONK, WILLIAM - - -	3243	23rd Oct. 1868	Looms for weaving.
MONNINGTON, WILLIAM WAL- [TER JAMES.	2822	14th Sept. 1868	Spring pendulums for chronometers and clocks. (Patented by Matthew Augustus Soul.)
MONSNERGUE, ALPHONSE -	3022	2nd Oct. 1868	An improved kiln for burning clay, lime, plaster and other materials.
MONT, CHARLES AUGUSTUS LA	2367	28th July 1868	An improved preparation of eggs.
MONTAGU, CHARLES - - -	3558	23rd Nov. 1868	Manufacture of pianofortes, harmoniums and certain other musical instruments.
MONTANDON, DAVID JULIEN -	316	29th Jan. 1868	Self-acting brakes for carriages. (Patented by William Edward Newton.)
MONTECUCCO, FRANCOIS -	2027	24th June 1868	Apparatus for economizing motive-power. (Patented by Dominique Marie Giacometti.)
MONTEITH, ROBERT THOMSON	3059	7th Oct. 1868	An improved manufacture of fire bricks and fire resisting cement.
MONTRICHARD, GÉRARD, MAR- [QUIS OF.	3492	17th Nov. 1868	Machinery for transmitting motion and for imparting power, by liquids of different densities, such as water and mercury.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MOODIE, WILLIAM - - -	3122	12th Oct. 1868	Improvements in the propelling and steering of ships or vessels, and in the machinery or apparatus employed therefor.
MOON, JAMES - - -	3121	12th Oct. 1868	An improved mode of making and fastening together bedsteads.
MOORE, BENJAMIN THEO- [PHILUS.	175	18th Jan. 1868	A new or improved apparatus for protecting water pipes from injury by frost.
MOORE, BENJAMIN THEO- [PHILUS.	2029	24th June 1868	New or improved apparatus for protecting water pipes from injury by frost.
MOORE, EDWIN - - -	3502	18th Nov. 1868	New (or improved) boxes for transmitting patterns, samples and other goods through the post and for other purposes. (Patented by William Preston Nash.)
MOORE, GEORGE - - -	2504	11th Aug. 1868	Manufacture of window and other cornices, poles and rods for internal or house decorations.
MOORE, HENRY - - -	396	5th Feb. 1868	Improvements in the construction of furniture expanders and in machinery to be used in making the same, which machinery is also applicable to other manufactures.
MOORE, HENRY - - -	2504	11th Aug. 1868	Manufacture of window and other cornices, poles and rods for internal or house decorations.
MOORE, JACOB B. - - -	329	30th Jan. 1868	Window sun blinds. (Patented by William Edward Newton.)
MOORE, JAMES - - -	3337	3rd Nov. 1868	Certain improvements in the manufacture of woven fabrics.
MOORE, JOHN - - -	1572	14th May 1868	Looms for weaving.
MOORE, JOHN - - -	2969	30th Sept. 1868	Looms for weaving.
MOORE, LEWIS - - -	542	19th Feb. 1868	Machinery for turning, grinding and polishing rollers or cylinders composed of metal or other material.
MOORE, RALPH - - -	1530	11th May 1868	Manufacture or treatment of crushed sugar. (Communicated by Claus Spreckles.)
MOORE, THOMAS - - -	2504	11th Aug. 1868	Manufacture of window and other cornices, poles and rods for internal or house decorations.
MOORE, WILLOUGHBY MONT- [GOMERY.	2467	6th Aug. 1868	Invoice and other paper holders.
MOORHOUSE, JOSEPH - -	159	17th Jan. 1868	Improvements in that class of machinery known as "cone drawing," employed in drawing or preparing wool.
MORAN, JOSEPH - - -	3295	23th Oct. 1868	Manufacture of boots and shoes.
MORANT, GEORGE FRANCIS -	2962	26th Sept. 1868	Manufacture of artificial fuel.
MORANT, GEORGE FRANCIS -	3343	3rd Nov. 1868	Cases for packing game.
MORDUE, THOMAS - - -	3292	28th Oct. 1868	Steam-boilers for marine engines.
MORELAND, JOHN HARRISON -	3611	26th Nov. 1868	Pneumatic looms.
MORELAND, RICHARD, the [younger.	1153	6th April 1868	Improvements in pumping engines and steam-boilers therefor, which steam-boilers are also applicable to other purposes.
MORET, JULES - - -	1645	20th May 1868	An improved lift-and-force double action pump giving a continuous and regular supply of liquid.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MOREWOOD, EDMUND - -	814	9th March 1868	Improvements in coating metal plates and in apparatus used therein.
MORGAN, EDWARD - - -	1455	4th May 1868	Carriages.
MORGAN, EDWARD AIKMAN -	378	4th Feb. 1868	Apparatus for spinning or twisting.
MORGAN, EDWARD AIKMAN -	1246	16th April 1868	Manufacture of the glass rings employed in spinning, twisting and thread making machines, of the class commonly known as ring and traveller throistles.
MORGAN, GEORGE HENRY -	1455	4th May 1868	Carriages.
MORGAN, JABEZ - - -	284	27th Jan. 1868	Joining metallic pipes.
MORGAN, JABEZ - - -	1729	26th May 1868	Apparatus for regulating the temperature of and ventilating hothouses, conservatories and other rooms and buildings.
MORGAN, JAMES CLIFFORD -	3105	9th Oct. 1868	Manufacture of cast-iron cisterns, lutes and covers.
MORGAN, RICHARD DOUGLAS	2618	22nd Aug. 1868	A new (or improved) glove or apparatus for facilitating swimming.
MORGAN, RICHARD WALKER	2652	26th Aug. 1868	An improved machine for mowing and reaping.
MORGAN-BROWN, WILLIAM -	3399	9th Nov. 1868	Man engines for raising water and lowering and raising men. (Communicated by Peeters Van Dyk.)
MORIGNY, ONÉSIME DE - -	1215	11th April 1868	Wet gas-meters. (Patented by Ernest Dubois and Edward Casper.)
MORISON, ROBERT JOSEPH -	1109	1st April 1868	Cotton gins. (Communicated by Messrs. Joseph H. Adams and Coombs.)
MORITZ, HERMANN - - -	2413	31st July 1868	A new file-planing machine.
MORITZ, HERMANN - - -	2414	31st July 1868	A new file-cutting machine.
MORLEY, WILLIAM WILSON -	29	4th Jan. 1868	Printing of paper bags while in the process of making by Shaw's patent or other bag machines, or for printing paper from the reel.
MORRELL, ABEL - - -	2370	28th July 1868	Manufacture of needles.
MORRELL, ROBERT WILSON -	9	1st Jan. 1868	Machinery or apparatus for spinning and doubling fibrous substances.
MORRIS, HENRY GURNEY -	357	3rd Feb. 1868	Steam and water valves, cocks and faucets. (Patented by Clinton Edgcumbe Brooman.)
MORRIS, JAMES - - -	1746	27th May 1868	An improved method of and apparatus for facilitating the finishing of printed sheets of paper.
MORRIS, JAMES - - -	2075	27th June 1868	Steam-boilers.
MORRIS, SAMUEL - - -	2649	26th Aug. 1868	Self-acting mules for spinning and doubling.
MORRIS, THOMAS - - -	1916	11th June 1868	The application and use of buoys and submerged vessels for supporting objects and erections in deep water.
MORRISON, JOHN - - -	2336	25th July 1868	Arrangements or apparatus for preventing smoke in connection with boiler furnaces.
MORRISON, LIPMAN LOUIS -	3645	30th Nov. 1868	Construction of hats or coverings for the head.
MORSE, CYRUS BULLARD -	1288	20th April 1868	Construction of rings for ring spinning. (Patented by Alfred Vincent Newton.)



[Mor]

## ALPHABETICAL INDEX OF PATENTEEES

[Mou]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MORT, THOMAS SUTCLIFFE -	3278	26th Oct. 1868	An improved method of and apparatus for obtaining reduction of temperature by the expansion of air or other permanent gases, in special connection with the preservation of articles of food, the manufacture of ice, cooling of rooms and liquids. (Patented by William Mort.)
MORT, WILLIAM - - -	3278	26th Oct. 1868	An improved method of and apparatus for obtaining reduction of temperature by the expansion of air or other permanent gases, in special connection with the preservation of articles of food, the manufacture of ice, cooling of rooms and liquids. (Communicated by Thomas Sutcliffe Mort and Eugene Dominique Nicolle.)
MORTEN, THOMAS HONOR -	1149	6th April 1868	Improvements in the construction of organs and in the application of electricity thereto.
MORTIMER, SAMUEL - -	84	10th Jan. 1868	Machinery for combing wool or other fibrous substances.
MORTON, GEORGE - - -	2158	7th July 1868	Ornamenting fire-grates and fenders.
MORTON, ROBERT - - -	377	4th Feb. 1868	Improvements in refrigerators or apparatus for cooling liquids, parts of which improvements are also applicable to distillation, surface condensation, and heating air for blast furnaces or other purposes.
MOSER, ADOLPH - - -	3706	5th Dec. 1868	"Gig mills" employed in the finishing of woven fabrics. (Patented by Edward Kenworthy Dutton.)
MOSER, ROBERT JAMES - -	299	28th Jan. 1868	Bellows applicable especially to portable and other forges. (Communicated by Messrs. John and Walter Bowden.)
MOSS, FRANK WILLIAM - -	3738	8th Dec. 1868	Mode of and apparatus for preventing collisions on railways.
MOSS, FREDERICK - - -	717	3rd March 1868	Improvements in apparatus for registering passengers travelling by public vehicles, and in the construction of certain vehicles to be used in combination therewith.
MOSS, GEORGE - - -	3738	8th Dec. 1868	Mode of and apparatus for preventing collisions on railways.
MOTAY, CYPRIEN MARIE TESSIÉ DU	1513	8th May 1868	Preparing zirconia and the employment of the same to develop the light of oxyhydrogen flame. (Patented by Clinton Edgcumbe Brooman.)
MOTAY, CYPRIEN TESSIÉ DU -	1831	4th June 1868	Apparatus for the manufacture or production of carbonic oxide, hydrogen and carbonated hydrogens. (Patented by Clinton Edgcumbe Brooman.)
MOTAY, CYPRIEN TESSIÉ DU -	1833	4th June 1868	Improvements in the manufacture or transformation of iron and steel, and in apparatus employed therein. (Patented by Clinton Edgcumbe Brooman.)
MOULE, HENRY - - -	2409	31st July 1868	Improvements in fire-places and furnaces, and in the mode of feeding the same with fuel.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MOULIN, LOUIS ARMAND -	2662	27th Aug. 1868	An improved press for stamping letters, books and documents, with ink or other coloring matter.
MOULTON, GEORGE -	349	1st Feb. 1868	Pentagraph engraving machines employed in the engraving of cylindrical or other surfaces.
MOULTON, GEORGE - -	2246	17th July 1868	Pentagraph engraving machines employed in the engraving of cylindrical or other surfaces.
MOULTON STEPHEN - -	1522	9th May 1868	Treatment of vulcanised or cured india-rubber for obtaining a substance of a mossy nature suitable for printers' inking rollers, cushions and other articles.
MOWAT, ROBERT - - -	382	4th Feb. 1868	Lamps for burning paraffin and other hydrocarbon oils.
MUCKLOW, EDWARD - -	2042	25th June 1868	Utilising refuse tanning matters for dyeing purposes.
MUDGE, CHARLES FREDERICK	2780	9th Sept. 1868	An improvement in pumps. (Patented by Alfred Vincent Newton.)
MUDGE, GEORGE - - -	36	4th Jan. 1868	Adjustable lock furniture.
MUELLER, CHARLES GUSTAVUS	3716	7th Dec. 1868	Apparatus for cooling milk and other fluids. (Patented by Israel Edward Woolf.)
MUIR, MATTHEW ANDREW -	1495	7th May 1868	Power looms.
MUIR, WILLIAM JOHN COCK- [BURN.	2252	17th July 1868	Construction of the permanent way of railways.
MULHOLLAND, JOSEPH RICH- [ARDSON TURTLE.	42	6th Jan. 1868	An improved construction of "creel" or bobbin-holder.
MULLEN, OSMOND HENRY MC	90	9th Jan. 1868	An improved mashing machine.
MULLER, JAN ANTHONY -	2132	4th July 1868	An improved meter for regulating and registering the flow of liquids and gases.
MÜLLER, WILHELM - -	1937	13th June 1868	An improved apparatus for cooling beer and other malt liquors.
MULLINER, FRANCIS - -	875	14th March 1868	Improved apparatus to be used in connection with the poles and splinter bars of carriages.
MULLINS, WILLIAM - -	1450	4th May 1868	An improved mode of locking the nuts of screw bolts. (Patented by Albert Vickers.)
MULLORD, ALEXANDER - -	147	16th Jan. 1868	An improved material for the manufacture or ornamentation of bonnets and other articles.
MULLORD, ALEXANDER - -	1563	13th May 1868	Improved materials for the manufacture or ornamentation of bonnets and other articles.
MULLORD, HENRY BARTHOLO- [MEW.	147	16th Jan. 1868	An improved material for the manufacture or ornamentation of bonnets and other articles.
MULLORD, HENRY BARTHOLO- [MEW.	1563	13th May 1868	Improved materials for the manufacture or ornamentation of bonnets and other articles.
MULVEY, ALFRED - - -	1714	25th May 1868	Machinery for cutting tenons and shoulders.
MUMMENHOFF, LOUIS - -	515	15th Feb. 1868	Compositions for the manufacture of building blocks and for use in building. (Communicated by Nicolaus Schroder.)
MUND, CARL - - - -	102	11th Jan. 1868	Steam hammers. (Patented by Arnold Budenberg.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MUNRO, ARCHIBALD - -	1426	1st May 1868	Machinery tools and tool holders to be used for cutting stone, slate, marble and other materials.
MUNRO, ARCHIBALD - -	1884	9th June 1868	An improved method of manufacturing tools for hewing or cutting stone, slate, marble and other substances, and improvements in the compounds or materials of which such tools are made.
MUNRO, ARCHIBALD - -	2206	13th July 1868	Manufacture or casting of tools.
MUNRO, ARCHIBALD - -	2207	13th July 1868	Manufacture of iron and other metallic substances.
MUNRO, ARCHIBALD - -	3330	31st Oct. 1868	Improvements in the manufacture of iron, steel and other metallic substances, such improvements being also applicable to the manufacture of tools made of the same materials.
MURDOCH, HUNTER HENRY -	1320	22nd April 1868	Construction of "concaves" or breasting for the beating drums of thrashing machines. ( <i>Communicated by Emile Questienne and Edmond Van Schepdael the younger.</i> )
MURE, LOUIS - - - -	3080	7th Oct. 1868	Improved means and apparatus for generating electricity by heat. ( <i>Patented by Edward Thomas Hughes.</i> )
MURE, LOUIS GERMAIN - -	1806	2nd June 1868	Improved fishing apparatus.
MURGATROYD, JOSHUA - -	28	4th Jan. 1868	Improvements in the manufacture of iron and in the application thereof to certain useful purposes.
MURPHY, WILLIAM JEREMIAH	2912	22nd Sept. 1868	Improvements in the manufacture of rifled barrels for small arms and ordnance, and in apparatus to be employed in such manufacture.
MURPHY, WILLIAM JEREMIAH	3797	14th Dec. 1868	Construction and working of ordnance.
MURRAY, ANDREW JOHN -	1808	16th May 1868	Reaping-machines.
MURRAY, CHARLES HENRY -	2000	20th June 1868	An improved device for uniting and securing the ends of straps and belts.
MURRAY, DUNCAN - - -	355	1st Feb. 1868	Improvements in coverings for the head, which improvements are also partly applicable to the protecting or covering of the mouth and neck.
MURRAY, JAMES - - -	893	16th March 1868	Lamps for burning paraffin and other oils and spirit.
MURRAY, JOHN - - -	3010	1st Oct. 1868	Improved means or apparatus for consuming or preventing the escape of smoke from steam-boiler and other furnaces, and collecting for utilization the waste products of combustion of the fuel.
MURRAY, ROBERT CHARLES -	799	7th March 1868	Stereoscopes.
MURRAY, THOMAS ANDREW [LUMSDEN.	570	20th Feb. 1868	Rails for tramways.
MURRAY, WALTER - - -	240	23rd Jan. 1868	Self-acting mules and billies for spinning and doubling wool or other fibrous substances.
MURRAY, WILLIAM ARCHI- [BALD.	2873	17th Sept. 1868	Improvements in constructing wire fences and in apparatus used therein. ( <i>Patented by John Head.</i> )
MUSCHAMP, JOHN BELL -	2931	24th Sept. 1868	Manufacture of carburetted hydrogen or luminous gas.
MYERS, EDWARD - - -	47	7th Jan. 1868	Permanent way of railways.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MYERS, JACOB - - -	3845	30th Nov. 1868	Construction of hats or coverings for the head.
MYERS, WALTER - - -	562	19th Feb. 1868	Locketts, miniature bracelets and miniature brooches.
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NAAR, WILLIAM - - -	2447	4th Aug. 1868	Construction of mattresses and camp beds.
NAAR, WILLIAM - - -	3814	15th Dec. 1868	Construction of mattresses and camp beds.
NABBS, RICHARD - - -	1144	4th April 1868	Locks and latches.
NACKE, EMIL HERMANN -	2615	22nd Aug. 1868	Governors for steam and other motive-power engines. (Patented by William Johannes Kessel-meyer and Charles Augustus Kessel-meyer.)
NALL, WILLIAM - - -	1168	7th April 1868	An improved apparatus for holding and igniting matches.
NAPIER, JAMES MURDOCH -	166	17th Jan. 1868	Improvements in apparatus for cutting and dressing metals, woods and other materials, and in the tools to be used in combination therewith.
NAPIER, JOHN - - -	1119	2nd April 1868	Apparatus for steering ships and vessels.
NASAROW, GRIGORY WASSILL-[JEWITSCH.	735	3rd March 1868	Manufacture of iron and steel. (Patented by Iwan Wassiljewitsch Nasarow.)
NASAROW, IWAN WASSILL-[JEWITSCH.	735	3rd March 1868	Manufacture of iron and steel. (Communicated by Grigory Wassiljewitsch Nasarow.)
NASH, THOMAS - - -	152	16th Jan. 1868	Stoves and fireplaces.
NASH, WILLIAM PRESTON -	3502	18th Nov. 1868	New (or improved) boxes for transmitting patterns, samples and other goods through the post and for other purposes. (Communicated by Edwin Moore.)
NASON, JOSEPH - - -	2774	9th Sept. 1868	Steam-boilers. (Patented by John Millward.)
NATHAN, THOMPSON - -	2694	31st Aug. 1868	Cutting nippers.
NAUGHT, WILLIAM M <sup>c</sup> - -	862	13th March 1868	Improvements in steam-engines, steam-boiler and other furnaces, and in apparatus for heating feed water.
NAUGHT, WILLIAM M <sup>c</sup> - -	2787	10th Sept. 1868	Improvements in steam-engines, steam-boiler and other furnaces, and in apparatus for heating feed-water.
NAYLOR, SAMUEL - - -	839	11th March 1868	Apparatus for raising water.
NAYLOR, WILLIAM - - -	2682	29th Aug. 1868	Improvements in railway breaks and in apparatus connected therewith.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NAYLOR, WILLIAM - - -	3635	23th Nov. 1868	Improvements in railway breaks and in apparatus connected therewith, part of which improvements is applicable to the regulating the pressure of steam, air, gas or water for various useful purposes.
NEEDHAM, JOSEPH - - -	593	22nd Feb. 1868	Fastenings for gloves, boots and other articles.
NEEDHAM, RICHARD - - -	230	22nd Jan. 1868	Valves of steam-engines.
NEEDHAM, RICHARD - - -	2138	4th July 1868	An improved fuel economizer and feed-water heater.
NEEDHAM, RICHARD - - -	3358	5th Nov. 1868	Scrapers of fuel economizers and steam generators.
NEEDHAM, RICHARD - - -	3749	9th Dec. 1868	Improvements in fuel economizers and in apparatus connected therewith.
NEEDHAM, WILLIAM - - -	1624	18th May 1868	Preparing filtering surfaces for the depuration of fluids.
NEEDHAM, WILLIAM - - -	2881	18th Sept. 1868	Machinery or apparatus for depurating fluids.
NEER, CHARLES - - -	1447	2nd May 1868	Dynamometers. (Patented by William Robert Lake.)
NEIBER, FERDINAND - - -	709	2nd March 1868	Fastenings for glove boxes, handkerchief boxes, purses, cigar cases, necessaires, writing cases and other articles.
NÉLATON, DIDIER EDOUARD -	316	29th Jan. 1868	Self-acting brakes for carriages. (Patented by William Edward Newton.)
NELSON, CHARLES - - -	3762	10th Dec. 1868	Setting steam-boilers. (Patented by Isaac Smith and Jean François Nicholas Biesman Simons.)
NELSON, GEORGE - - -	2544	14th Aug. 1868	Improved apparatus and means for disinfecting clothing, bedding, furniture, upholstery and articles of like nature.
NEUHAUS, MATTHIAS - - -	1775	29th May 1868	Portable apparatus for cooling wine or other liquids in bottles or other like receptacles.
NEUMAN, PIERRE ARMAND -	1278	20th April 1868	Treatment of textile fabrics for consolidating them and rendering them impermeable. (Patented by Charles Denton Abel.)
NEUMANN, JULIUS - - -	2585	19th Aug. 1868	Apparatus for generating and purifying coal lighting gas, the said apparatus being adapted to household or domestic use, the gas-holder automatically regulated, and the surplus gas produced used as fuel.
NEUMANN, JULIUS - - -	2717	3rd Sept. 1868	Fans known as Chinese fans.
NEWBERY, BENJAMIN - - -	569	20th Feb. 1868	Preparation of cigars.
NEWBERY, BENJAMIN - - -	946	20th March 1868	Preparation of cigars and mode of lighting the same.
NEWBY, EDWIN HENRY - - -	1169	7th April 1868	An improved boat-detaching apparatus. (Communicated by Jacob Heinrich Gustav Lange and Theodor Zeise.)
NEWBY, EDWIN HENRY - - -	2137	4th July 1868	Improvements in reducing aluminium from its ores or earths, and in producing alloys therefrom. (Communicated by Anthony Leonard Fleury.)
NEWELL, JAMES JOHN - - -	3348	4th Nov. 1868	Atmospheric water elevating engines. (Patented by Alfred Vincent Newton.)

New]

## AND APPLICANTS FOR PATENTS OF INVENTION.

[New

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWLANDS, BENJAMIN ED- [WARD REINA.	596	22nd Feb. 1868	Improvements in treating spent oxide of iron or oxide of iron which has been used in gas works or otherwise, to separate sulphur from sulphuretted hydrogen, and in the purification of sulphur obtained from such oxide of iron.
NEWLANDS, BENJAMIN ED- [WARD REINA.	923	18th March 1868	Improvements in treating and obtaining products from spent oxide of iron which has been used in gas works or otherwise, to separate sulphur from sulphuretted hydrogen, and in the purification of sulphur obtained from such oxide of iron.
NEWLANDS, BENJAMIN ED- [WARD REINA.	3033	3rd Oct. 1868	Improvements in the manufacture of manure and in the production of salts of ammonia.
NEWMAN, CHARLES HENRY -	86	9th Jan. 1868	Manufacture of unfermented and unintoxicating malt liquors.
NEWNHAM, BENJAMIN - -	3554	23rd Nov. 1868	Applications of folding steps to carriages.
NEWNHAM, BENJAMIN THOMAS	3554	23rd Nov. 1868	Applications of folding steps to carriages.
NEWTON, ALFRED VINCENT -	202	20th Jan. 1868	Improvements in sewing-machines, part of which are applicable to other purposes. (Communicated by the Singer Manufacturing Company (Incorporated).)
NEWTON, ALFRED VINCENT -	586	21st Feb. 1868	Reaping and mowing machines. (Communicated by William Farr Goodwin.)
NEWTON, ALFRED VINCENT -	594	22nd Feb. 1868	Improvements applicable to steam-boiler and other furnaces. (Communicated by William Henry Nobles and Milton Vorse Nobles.)
NEWTON, ALFRED VINCENT -	647	26th Feb. 1868	Electro-magnetic apparatus. (Communicated by Laban Clarke Stuart.)
NEWTON, ALFRED VINCENT -	754	4th March 1868	Improved apparatus for measuring spirituous liquors. (Communicated by Robert Creusbaur.)
NEWTON, ALFRED VINCENT -	769	5th March 1868	Improved apparatus for cultivating land and sowing seed. (Communicated by David Dunham Stelle.)
NEWTON, ALFRED VINCENT -	828	10th March 1868	Improved apparatus for lubricating machinery. (Communicated by William Smith Finney.)
NEWTON, ALFRED VINCENT -	920	18th March 1868	An improved manufacture of covering for floors. (Communicated by William Howell, James C. Fenn and Charles H. Day.)
NEWTON, ALFRED VINCENT -	985	23rd March 1868	Thrashing machinery. (Communicated by Auguste Bernard Albarot.)
NEWTON, ALFRED VINCENT -	1003	24th March 1868	Construction of pocket knives. (Communicated by Robert Wade.)
NEWTON, ALFRED VINCENT -	1018	25th March 1868	Spinning machinery. (Communicated by Henry Tatem Potter and Joseph Griswold Lamb.)
NEWTON, ALFRED VINCENT -	1161	6th April 1868	Bathing shoes. (Communicated by M <sup>r</sup> . Louis Desiré Jean-dron-Ferry.)
NEWTON, ALFRED VINCENT -	1162	6th April 1868	Anchors. (Communicated by George A. Lloyd and Charles A. Stewart.)

New]

## ALPHABETICAL INDEX OF PATENTÉES

[New

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, ALFRED VINCENT -	1236	15th April 1868	Breech-loading fire-arms. (Communicated by Herman Funke.)
NEWTON, ALFRED VINCENT -	1262	17th April 1868	Improved machinery for gathering hay and other crops from the ground. (Communicated by John Marcus Boorman.)
NEWTON, ALFRED VINCENT -	1288	20th April 1868	Construction of rings for ring spinning. (Communicated by Cyrus Bullard Morse.)
NEWTON, ALFRED VINCENT -	1598	15th May 1868	Liquid meters. (Communicated by Joshua Mason.)
NEWTON, ALFRED VINCENT -	1658	20th May 1868	Sewing-machines. (Communicated by Caroline Garcia and Amelie Garcia.)
NEWTON, ALFRED VINCENT -	1862	6th June 1868	Improved apparatus for storing and measuring petroleum and other liquids. (Communicated by Frederick Moritz Beral Bertram.)
NEWTON, ALFRED VINCENT -	2022	23rd June 1868	An improved construction of folding chair. (Communicated by Claudius Otignon Collignon and Nicholas Collignon.)
NEWTON, ALFRED VINCENT -	2023	23rd June 1868	An improved construction of brick machine. (Communicated by Peter Hayden.)
NEWTON, ALFRED VINCENT -	2084	29th June 1868	Liquid meters. (Communicated by Robert Creuzbawr.)
NEWTON, ALFRED VINCENT -	2342	25th July 1868	An improved construction of portable railway. (Communicated by James Knox Glenn.)
NEWTON, ALFRED VINCENT -	2355	27th July 1868	An improved propeller for steam vessels, canal boats and other vessels. (Communicated by Robert Hunter.)
NEWTON, ALFRED VINCENT -	2379	29th July 1868	An improved cutting and polishing powder applicable in the manufacture of cutting, grinding and sharpening tools, and in the production of refractory substances. (Communicated by Adrien Tardieu.)
NEWTON, ALFRED VINCENT -	2448	4th Aug. 1868	Boot and shoe sewing machinery. (Communicated by Michael Joseph Stein.)
NEWTON, ALFRED VINCENT -	2453	5th Aug. 1868	Manufacture of iron and steel. (Communicated by Lorenzo Sibert, Daniel Charles Elliott Brady, John Daniel Imboden and Seth Maxwell Barton.)
NEWTON, ALFRED VINCENT -	2466	6th Aug. 1868	Manufacture of boots and shoes. (Communicated by John Morrison Hunter.)
NEWTON, ALFRED VINCENT -	2485	8th Aug. 1868	An improved construction of steam-engine governor. (Communicated by Edwin Louis Bo-meisler.)
NEWTON, ALFRED VINCENT -	2497	10th Aug. 1868	Automatic indicators for steam-boilers. (Communicated by Edwin Louis Bo-meisler.)
NEWTON, ALFRED VINCENT -	2601	20th Aug. 1868	Rotary engines. (Communicated by Frederick Ortlieb and Edward White.)
NEWTON, ALFRED VINCENT -	2755	7th Sept. 1868	Improvements in knitting and in the machinery to be used in knitting. (Communicated by Mark Lamar Roberts and Fergus Peniston.)

[New]

## AND APPLICANTS FOR PATENTS OF INVENTION.

[New]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, ALFRED VINCENT -	2780	9th Sept. 1868	An improvement in pumps. (Communicated by James Wilson and Charles Frederick Mudge.)
NEWTON, ALFRED VINCENT -	2983	29th Sept. 1868	An improvement in the manufacture of boots and shoes. (Communicated by Adolph Lyngbye.)
NEWTON, ALFRED VINCENT -	3348	4th Nov. 1868	Atmospheric water elevating engines. (Communicated by Andrew Jackson Reynolds and James John Newell.)
NEWTON, ALFRED VINCENT -	3535	20th Nov. 1868	Sewing needles. (Communicated by Samuel Ivers.)
NEWTON, ALFRED VINCENT -	3559	23rd Nov. 1868	An improved mode of dressing millstones. (Communicated by David Williams.)
NEWTON, ALFRED VINCENT -	3649	30th Nov. 1868	Apparatus for receiving and delivering mail bags and packages on railways. (Communicated by Freeman Knowlton Sibley and Levi Clifford Wade.)
NEWTON, ALFRED VINCENT -	3707	5th Dec. 1868	Improved apparatus for treating flour. (Communicated by John Lange.)
NEWTON, ALFRED VINCENT -	3928	23rd Dec. 1868	Treating cod liver oil and other oily or fatty matters to render them acceptable to the palate. (Communicated by Thaddeus Hyatt.)
NEWTON, EDWARD - - -	1774	29th May 1868	Means of and apparatus for obtaining and applying motive-power.
NEWTON, GEORGE ALEXANDER	1851	5th June 1868	Improvements applicable to steam-boiler and other furnaces for the more perfect combustion and economisation of fuel.
NEWTON, HENRY EDWARD -	3260	24th Oct. 1868	Steam pumps. (Communicated by Samuel Williston, James Sutherland and Joseph Winslow Winslow.)
NEWTON, HENRY EDWARD -	3465	14th Nov. 1868	Propelling vessels. (Communicated by Alfred Colburn Loud.)
NEWTON, HENRY EDWARD -	3573	24th Nov. 1868	Atmospheric hammers for crushing ores and other purposes. (Communicated by Hiram Wallace Colver.)
NEWTON, HENRY EDWARD -	3574	24th Nov. 1868	Improved gearing for multiplying motion on a single shaft. (Communicated by Lemuel Scudder Fithian.)
NEWTON, HENRY EDWARD -	3792	14th Dec. 1868	Improved machinery for transmitting power and motion. (Communicated by Charles Cornelius Hull.)
NEWTON, HENRY EDWARD -	3986	31st Dec. 1868	Washing machines. (Communicated by Hamilton Erastus Smith.)
NEWTON, ORLANDO THOMAS -	1851	5th June 1868	Improvements applicable to steam-boiler and other furnaces for the more perfect combustion and economisation of fuel.
NEWTON, ROBERT - - -	2344	25th July 1868	Improved machinery for opening and straightening fibres.
NEWTON, SAMUEL - - -	2685	31st Aug. 1868	An improved swing-door hinge.



New]

## ALPHABETICAL INDEX OF PATENTEEES

[New

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	31	4th Jan. 1868	An improved mechanical arrangement for converting power into speed and speed into power, and for multiplying and transmitting motion for all purposes where such movement can be applied and used. (Communicated by William Farr Goodwin.)
NEWTON, WILLIAM EDWARD -	79	8th Jan. 1868	An improved mode of propelling vessels. (Communicated by Charles M. O'Hara.)
NEWTON, WILLIAM EDWARD -	156	16th Jan. 1868	Improved machinery or apparatus for shaping, grinding, sharpening and polishing sword blades and handles, scabbards, gun barrels and other arms. (Communicated by Edouard Stehelin.)
NEWTON, WILLIAM EDWARD -	185	18th Jan. 1868	Ovens or kilns for firing or baking porcelain and various kinds of earthenware or pottery. (Communicated by Monsieur Edouard de Beaumont.)
NEWTON, WILLIAM EDWARD -	217	21st Jan. 1868	Rotary steam and other engines. (Communicated by John Marcus Boorman.)
NEWTON, WILLIAM EDWARD -	280	27th Jan. 1868	Improved machinery for grinding and polishing concave surfaces. (Communicated by William Cleveland Hicks.)
NEWTON, WILLIAM EDWARD -	281	27th Jan. 1868	Machinery for forming hat bodies, skirts and other articles of wool and other fibrous materials. (Communicated by John Hill Prentice.)
NEWTON, WILLIAM EDWARD -	316	29th Jan. 1868	Self-acting brakes for carriages. (Communicated by Auguste Bernier, Didier Edouard Nélaton and David Julien Montandon.)
NEWTON, WILLIAM EDWARD -	317	29th Jan. 1868	Improvements in breech-loading fire-arms and in cartridges and bullets for the same. (Communicated by Hiram Berdan.)
NEWTON, WILLIAM EDWARD -	329	30th Jan. 1868	Window sun blinds. (Communicated by Jacob B. Moore.)
NEWTON, WILLIAM EDWARD -	385	4th Feb. 1868	Improvements applicable to steam-boilers for automatically sounding an alarm at the extremes of high and low water, also for automatically sounding an alarm when the steam in the boilers exceeds a given pressure. (Communicated by Thomas Peter Akers.)
NEWTON, WILLIAM EDWARD -	394	5th Feb. 1868	Mowing and reaping machines. (Communicated by John Dodge Wilber, Mark Dodge Wilber and Francis Kirby Stevens.)
NEWTON, WILLIAM EDWARD -	395	5th Feb. 1868	Improvements in buttons and in the means for securing them to garments or other articles of wear or use. (Communicated by Daniel M. Lean Somers and Walter Scott Atwood.)
NEWTON, WILLIAM EDWARD -	405	6th Feb. 1868	Steam gauges. (Communicated by David M. Greene.)

[New]

## AND APPLICANTS FOR PATENTS OF INVENTION.

[New]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	487	11th Feb. 1868	An improved apparatus for saving life in cases of shipwreck. (Communicated by John Benjamin Stoner, Leopold Mendelson and Theodore Crommelin.)
NEWTON, WILLIAM EDWARD -	536	18th Feb. 1868	An improved material for the base of artificial teeth and for other purposes, and also an improved construction of mould for forming dental plates. (Communicated by John Alexander Mac Clelland.)
NEWTON, WILLIAM EDWARD -	571	20th Feb. 1868	Improvements in mechanical movements adapted for use in clocks and watches, and wherever else it is desired to multiply motion or to convert speed into power. (Communicated by William Farr Goodwin.)
NEWTON, WILLIAM EDWARD -	611	24th Feb. 1868	Manufacture of illuminating gas. (Communicated by Charles Musier Taintor.)
NEWTON, WILLIAM EDWARD -	650	26th Feb. 1868	A new and improved washing-machine. (Communicated by James Turner, Robert Turner, Archibald Turner, Malcolm Clarke Turner, Thomas Clarke Turner and George Moscript Turner.)
NEWTON, WILLIAM EDWARD -	664	27th Feb. 1868	Construction or building of boats or vessels. (Communicated by Elisha Waters, George Tacher Balch, Clarence Weed Waters and George Arthur Waters.)
NEWTON, WILLIAM EDWARD -	665	27th Feb. 1868	Pens and pen and pencil holders. (Communicated by John Thomas Price.)
NEWTON, WILLIAM EDWARD -	685	28th Feb. 1868	Improved apparatus for drying and finishing felted goods and fabrics. (Communicated by John Hill Prentice.)
NEWTON, WILLIAM EDWARD -	708	2nd March 1868	Improved apparatus for burning hydrocarbons for heating purposes. (Communicated by Charles Lawrence Perkins.)
NEWTON, WILLIAM EDWARD -	853	12th March 1868	Ballasting vessels. (Communicated by John Benjamin Stoner, Leopold Mendelson and Theodore Crommelin.)
NEWTON, WILLIAM EDWARD -	891	16th March 1868	Improvements in the manufacture of illuminating gas, in the distillation of hydrocarbons, and the making of gaseous fuel for heating purposes. (Communicated by Levi Stevens.)
NEWTON, WILLIAM EDWARD -	892	16th March 1868	Telegraphic apparatus. (Communicated by Elisha Whittelsey Andrews and Edward Augustine Calahan.)
NEWTON, WILLIAM EDWARD -	909	17th March 1868	Improvements in producing steel and cast steel, and in furnaces or apparatus used therein. (Communicated by Alois Thoma.)
NEWTON, WILLIAM EDWARD -	910	17th March 1868	Improvements in the process of preparing iron ore for smelting and in furnaces therefor. (Communicated by Alois Thoma.)

New]

## ALPHABETICAL INDEX OF PATENTERS

New]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	911	17th March 1868	An improved apparatus for measuring and administering medicine. (Communicated by Samuel Curtis, junior.)
NEWTON, WILLIAM EDWARD -	1058	27th March 1868	Engines for obtaining motive-power by means of steam, air, gases or fluids. (Communicated by Claude Ferdinand Latombe.)
NEWTON, WILLIAM EDWARD -	1184	8th April 1868	Manufacture of salts of soda. (Communicated by Isaac M. Gattman.)
NEWTON, WILLIAM EDWARD -	1200	9th April 1868	Improvements in fire-arms and in cartridges for the same. (Communicated by Hiram Berdan.)
NEWTON, WILLIAM EDWARD -	1318	22nd April 1868	Paddle-wheels for vessels. (Communicated by Donald L. McDonell.)
NEWTON, WILLIAM EDWARD -	1475	5th May 1868	Machinery for forming pick-axes and other tools. (Communicated by Harvey Lester Lowman.)
NEWTON, WILLIAM EDWARD -	1488	6th May 1868	Combs. (Communicated by Charles Horace Noyes.)
NEWTON, WILLIAM EDWARD -	1566	13th May 1868	Braces or suspenders. (Communicated by A. H. Jacobs.)
NEWTON, WILLIAM EDWARD -	1568	13th May 1868	Axles and axle-boxes. (Communicated by James Finlay.)
NEWTON, WILLIAM EDWARD -	1580	14th May 1868	Manufacture of felt hats. (Communicated by William Berry Lodge and Hiram Platner.)
NEWTON, WILLIAM EDWARD -	1581	14th May 1868	Steam-engines. (Communicated by Kellogg Hubbard Loomis.)
NEWTON, WILLIAM EDWARD -	1680	21st May 1868	Governors for steam and other motive-power engines. (Communicated by Marie Joseph Denis Farcot, Jean Joseph Leon Farcot, Michel Basile Abel Farcot and Joseph Etienne Elot Chateau.)
NEWTON, WILLIAM EDWARD -	1689	22nd May 1868	Grate-bars. (Communicated by Addison Calvin Fletcher.)
NEWTON, WILLIAM EDWARD -	1732	26th May 1868	Rotary steam and other engines. (Communicated by John Marcus Boorman.)
NEWTON, WILLIAM EDWARD -	1759	28th May 1868	Horse rakes. (Communicated by A. W. Coates.)
NEWTON, WILLIAM EDWARD -	1760	28th May 1868	Improved apparatus for hopping beer. (Communicated by William Syloanus Haight.)
NEWTON, WILLIAM EDWARD -	1808	2nd June 1868	Lever escapements for watches or time-keepers. (Communicated by Julius Hietel, John Wenzel Hietel and John L. Geissler.)
NEWTON, WILLIAM EDWARD -	1809	2nd June 1868	Cans and other vessels for containing liquid and other substances. (Communicated by Frederick William Devoe.)

New]

## AND APPLICANTS FOR PATENTS OF INVENTION.

[New

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	1912	11th June 1868	An improved adhesive cement applicable to uniting china, leather and other hard and soft substances. (Communicated by Charles Dearborn Peasley.)
NEWTON, WILLIAM EDWARD -	1987	19th June 1868	Apparatus for aërial navigation. (Communicated by C. Williams.)
NEWTON, WILLIAM EDWARD -	2130	3rd July 1868	Automaton toys. (Communicated by William Farr Goodwin.)
NEWTON, WILLIAM EDWARD -	2476	7th Aug. 1868	Improved apparatus or mechanism for regulating the speed or power of machinery. (Communicated by Marie Joseph Denis Farcot, Jean Joseph Leon Farcot, Michel Basile Abel Farcot and Joseph Etienne Eloi Chateau.)
NEWTON, WILLIAM EDWARD -	2478	7th Aug. 1868	Fire-arms. (Communicated by William Gardner.)
NEWTON, WILLIAM EDWARD -	2486	8th Aug. 1868	Screws and screw drivers. (Communicated by Peter Nelson Jacobus.)
NEWTON, WILLIAM EDWARD -	2528	12th Aug. 1868	Photographic frames and mechanism for making same. (Communicated by Garret Peter Bergen and Charles Thomas Bainbridge.)
NEWTON, WILLIAM EDWARD -	2546	14th Aug. 1868	Improvements applicable to machinery for combing silk and other fibrous substances. (Communicated by Louis Warnery.)
NEWTON, WILLIAM EDWARD -	2564	17th Aug. 1868	An improved instrument to be used as a fog alarum and to produce audible signals. (Communicated by John Reinhold Anderson.)
NEWTON, WILLIAM EDWARD -	2733	4th Sept. 1868	Thermometers. (Communicated by Jean Baptiste Napoleon Fournier and Charles Armand Lemaire.)
NEWTON, WILLIAM EDWARD -	2743	5th Sept. 1868	Mariner's compasses. (Communicated by Demetrius Bittle Strouse.)
NEWTON, WILLIAM EDWARD -	2863	17th Sept. 1868	Apparatus for raising water and other fluids. (Communicated by Henry Clark Sergeant.)
NEWTON, WILLIAM EDWARD -	2947	25th Sept. 1868	Improvements in adhesive stamps applicable for postal, internal revenue and other purposes. (Communicated by Addison Calvin Fletcher.)
NEWTON, WILLIAM EDWARD -	2996	30th Sept. 1868	Treating metals for the purpose of separating from them various impurities or foreign substances. (Communicated by Norman Cutter.)
NEWTON, WILLIAM EDWARD -	2997	30th Sept. 1868	An improved scissors sharpener. (Communicated by Garret Peter Bergen and Charles Thomas Bainbridge.)
NEWTON, WILLIAM EDWARD -	3016	1st Oct. 1868	An improved process for decorticating grain. (Communicated by Emanuel Weiss.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	3063	7th Oct. 1868	Improvements in knitting machinery and in apparatus to be employed with knitting machinery. (Communicated by Thomas Crane.)
NEWTON, WILLIAM EDWARD -	3091	8th Oct. 1868	An improved binnacle for iron ships. (Communicated by Charles Ole Olsen.)
NEWTON, WILLIAM EDWARD -	3102	9th Oct. 1868	An improved system of ascertaining and checking the amount of money or number of fares taken by the conductors or drivers of omnibuses or other public vehicles. (Communicated by Charles M. O'Hara.)
NEWTON, WILLIAM EDWARD -	3171	16th Oct. 1868	Manufacture of syrup and sugar. (Communicated by Narcisse Pigeon.)
NEWTON, WILLIAM EDWARD -	3192	19th Oct. 1868	Manufacture of gun barrels, vices, and various kinds of tools and instruments in which the handles are secured in open eyes. (Communicated by Harvey Lester Lowman.)
NEWTON, WILLIAM EDWARD -	3560	23rd Nov. 1868	Manufacture of felted fabrics, and wearing-apparel and other articles from the same. (Communicated by John Falconer.)
NEWTON, WILLIAM EDWARD -	3619	27th Nov. 1868	Oil cups or lubricators for machinery. (Communicated by Henry L. Fearing.)
NEWTON, WILLIAM EDWARD -	3648	30th Nov. 1868	Machines for opening and cleaning cotton or other fibrous substances. (Communicated by Richard Kitson.)
NEWTON, WILLIAM EDWARD -	3987	31st Dec. 1868	Improvements in revolving fire-arms and in cartridges for the same and for other fire-arms. (Communicated by Ebenezer Howard Plant, Amci Perrin Plant and Alfred Hotchkiss.)
NEZERAUX, PLACIDE - -	2644	25th Aug. 1868	Improvements in condensing the vapour of water and other liquids, and in the apparatus employed therein. (Patented by John Henry Johnson.)
NIBBS, JAMES SYSON - -	2195	11th July 1868	Portable and other pumps and water engines.
NICHOLAS, JAMES - - -	1118	2nd April 1868	Mode of and means or furnaces for burning petroleum and other like liquids.
NICHOLLS, RICHARD - -	612	24th Feb. 1868	A new or improved combined material or fabric to be applied to the manufacture of bags, reticules, writing cases, wristbands, cuffs, collars, belts and various other articles.
NICHOLLS, RICHARD - -	1209	11th April 1868	Self-attaching buttons or ornaments to be applied to ladies' dresses and such like purposes.
NICHOLSON, CHARLES JOSEPH [LINDSAY.	2421	1st Aug. 1868	Closing cans, barrels, kegs and other similar receptacles. (Communicated by Edward Jenkins.)
NICHOLSON, JOHN - - -	2769	8th Sept. 1868	Improvements in continuous expansion engines, and in the valves to be used therewith or with ordinary engines.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[Nim]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NICHOLSON, JOSEPH ALFRED -	436	8th Feb. 1868	Improvements in waterclosets, commodes, chamber and toilet utensils and other articles in earthenware or glass, and in the mode or means of securing stoppers, corks and other moveable parts or fittings therein or thereto, also in protecting the bearing or supporting surfaces thereof.
NICHOLSON, RICHARD - -	1152	6th April 1868	Improvements in the construction and arrangement of machinery or apparatus for supplying coal, cannel or other substances, to retorts or ovens, and for withdrawing the same after distillation, also improvements in retorts, retort chambers, mouthpieces, doors, covers or lids.
NICHOLSON, WILLIAM NEWZAM	3458	14th Nov. 1868	Hay-making machines.
NICHOLSON, WILLIAM NEWZAM	3821	16th Dec. 1868	An improved portable mangle.
NICKERSON, DAVID PHILIP -	3723	7th Dec. 1868	Improvements in railway carriage wheels, parts of which improvements are applicable to locomotive wheels. (Patented by William Robert Iake.)
NICKERSON, HIRAM - -	1557	13th May 1868	An improvement in rasps. (Patented by Stillman Boyd Allen.)
NICKOLS, DANIEL - - -	2487	8th Aug. 1868	Cocks or taps.
NICOLL, BENJAMIN - -	3269	26th Oct. 1868	An improved plastic composition suitable for ornamenting walls, floors, roofs and ceilings of buildings, and for the manufacture of mantlepieces, pillars, pilasters and other like parts of buildings.
NICOLL, ELIZABETH JEWEL -	601	22nd Feb. 1868	Waist springs for boots and shoes.
NICOLLE, EUGENE DOMINIQUE	3278	26th Oct. 1868	An improved method of and apparatus for obtaining reduction of temperature by the expansion of air or other permanent gases, in special connection with the preservation of articles of food, the manufacture of ice, cooling of rooms and liquids. (Patented by William Mort.)
NIEL, ANDREW M <sup>c</sup> - - -	2136	4th July 1868	An improved process for the manufacture of salts of ammonia from ammoniacal gas liquor.
NIEL, ANDREW M <sup>c</sup> - - -	3484	16th Nov. 1868	An improved process for the manufacture of salts of ammonia from ammoniacal gas liquor.
NIEPCE, ETIENNE JOSEPH [EUGENE, junior.]	2604	21st Aug. 1868	New or improved safety blinkers, intended to stop skittish or runaway horses. (Communicated by Joseph Isidore Niepce, senr.)
NIEPCE, JOSEPH ISIDORE, senr	2604	21st Aug. 1868	New or improved safety blinkers, intended to stop skittish or runaway horses. (Patented by Etienne Joseph Eugène Niepce, junior.)
NILLUS, FERDINAND MICHEL [ERNEST.]	1052	27th March 1868	Construction, arrangement and application of steam-engines. (Patented by George Davies.)
NIMMO, GEORGE - - -	131	15th Jan. 1868	An improved composition for furnace linings, fire bricks, pots, crucibles and other articles.

[Nis]

## ALPHABETICAL INDEX OF PATENTEEES

[Nut]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NISSEK, PEDRO - - -	1375	27th April 1868	An improved explosive compound or safety blasting powder.
NIXON, JOHN - - -	37	4th Jan. 1868	Apparatus for transferring coal or minerals from railway waggons into barges.
NIXON, JOHN - - -	429	8th Feb. 1868	Manufacture of braces.
NOBLES, MILTON VORSE -	594	22nd Feb. 1868	Improvements applicable to steam-boiler and other furnaces. (Patented by Alfred Vincent Newton.)
NOBLES, WILLIAM HENRY -	594	22nd Feb. 1868	Improvements applicable to steam-boiler and other furnaces. (Patented by Alfred Vincent Newton.)
NOEL, JULES - - -	2748	7th Sept. 1868	Apparatus or means for feeding and burning mineral oils and essences for lighting purposes. (Patented by Clinton Edgcombe Brooman.)
NOEL, PIERRE JULES JACOB -	450	10th Feb. 1868	Breech-loading ordnance and projectiles. (Patented by Alexander Melville Clark.)
NORBURY, JOHN - - -	2587	19th Aug. 1868	Force pumps employed in connection with hydraulic presses for packing or pressing, or the like uses.
NORFOLK, RICHARD - - -	3790	14th Dec. 1868	Reaping-machines.
NORMAN, JOHN - - -	880	16th March 1868	Apparatus for dressing millstones.
NORMAN, JOHN - - -	1519	9th May 1868	Improvements in calcining, burning or oxidising ores, minerals, metals and other substances, and in reducing oxides and salts of metals and other substances, and in apparatus for these purposes.
NORMAN, JOHN - - -	3755	10th Dec. 1868	Apparatus for grinding grain or other granular matters.
NORRIS, JAMES - - -	1105	1st April 1868	Cooking apparatus.
NORRIS, SAMUEL - - -	2628	24th Aug. 1868	Cartridges for breech-loading fire-arms. (Patented by William Robert Lake.)
NORTON, BENJAMIN - - -	3915	22nd Dec. 1868	Improvements in tipping pile fabrics and in apparatus to be used for such purpose.
NORTON, JAMES LEE - - -	61	7th Jan. 1868	Apparatus for indicating and recording the fluctuations of the pressures and temperatures of liquids and fluids.
NORTON, JAMES LEE - - -	699	29th Feb. 1868	Improvements in sinking or forming wells and in apparatus to be used for this and similar purposes.
NORTON, JAMES LEE - - -	3633	28th Nov. 1868	Dyeing and printing.
NOUALHIER, EUGENE THEO- [DORE.]	3974	30th Dec. 1868	Apparatus for supplying, blowing in and exhausting air, producing draft and ventilation.
NOYES, CHARLES HORACE -	1488	6th May 1868	Combs. (Patented by William Edward Newton.)
NUELLENS, JULIUS - - -	1775	29th May 1868	Portable apparatus for cooling wine or other liquids in bottles or other like receptacles.
NURSE, GEORGE - - -	3254	24th Oct. 1868	Apparatus employed in connection with the coating of metals.
NUSSEY, JOSEPH - - -	618	25th Feb. 1868	Spinning and twisting machinery. (Patented by Joseph Veevers.)
NUTT, JOSEPH HASSELL -	1550	12th May 1868	An improved manufacture of straining surface for oil and other like presses.
NUTTALL, FRANCIS DIXON -	1647	20th May 1868	Reverberatory furnaces for roasting and smelting purposes.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[Ogd]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NUTTALL, RICHARD - -	1345	24th April 1868	Certain improvements in the manufacture of woven fabrics termed "quiltings" and "toiletings," and for similar descriptions of fabrics.
NUTTALL, THOMAS - -	1345	24th April 1868	Certain improvements in the manufacture of woven fabrics termed "quiltings" and "toiletings," and for similar descriptions of fabrics.
NUTTALL, THOMAS - -	2180	9th July 1868	Bearing surfaces of horse collars, riding and harness saddles and similar articles. (Communicated by Eugene Sullivan.)

## O.

O'CONNELL, EDWARD - -	3021	2nd Oct. 1868	Apparatus for supplying nourishment to infants, invalids and others.
O'DONNELL, JAMES - -	415	7th Feb. 1868	Apparatus for raising and lowering venetian and other blinds.
O'HARA, CHARLES M. - -	79	8th Jan. 1868	An improved mode of propelling vessels. (Patented by William Edward Newton.)
O'HARA, CHARLES M. - -	3102	9th Oct. 1868	An improved system of ascertaining and checking the amount of money or number of fares taken by the conductors or drivers of omnibuses or other public vehicles. (Patented by William Edward Newton.)
O'HEA, JOHN BRYAN - -	2912	22nd Sept. 1868	Improvements in the manufacture of rifled barrels for small arms and ordnance, and in apparatus to be employed in such manufacture.
O'HEA, JOHN BRYAN - -	3286	27th Oct. 1868	Improvements in breech-loading fire-arms and in cartridges to be used therewith, which improvements are also applicable to breech-loading ordnance and their cartridges.
OAKDEN, JOSEPH - - -	1804	2nd June 1868	A new or improved material for enamelling iron, so as to prevent corrosion and incrustation.
OAKESHOTT, BENJAMIN [MORRIS.]	409	6th Feb. 1868	An improved hot-air simple or medicated vapour bath.
OCLEE, FREDERICK HENRY -	2142	6th July 1868	An improved cork drawer.
OFFORD, JOSEPH - - -	369	3rd Feb. 1868	Improvements in public and private carriages and vehicles in regard to opening and closing the heads or hoods of those having moveable heads or hoods, and opening and closing the doors of public and private carriages and vehicles generally.
OGDEN, JOHN - - -	2679	29th Aug. 1868	Certain improvements in mechanism or apparatus to be employed for preparing cotton and other fibrous substances.



Old]

## ALPHABETICAL INDEX OF PATENTEES

[Osm]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
OLDHAM, ADAM - - -	2205	13th July 1868	An improvement in the means of hanging and adjusting picture frames and other articles of a like nature.
OLIVER, JOHN - - -	2783	10th Sept. 1868	Utilization of the alkaline, neutral and saline salts contained in the mother-liquors or weak alkali resulting from the manufacture of crystals of soda or other alkaline salts.
OLIVIER, JEAN - - -	3014	1st Oct. 1868	Mode of and apparatus for obtaining motive-power by means of the wind.
OLLIVIER, OSCAR - - -	50	7th Jan. 1868	The publication and distribution of certain journals, almanacks, books, papers, &c., which in themselves form a complete system of business and other advertisements. (Patented by Stanley Eley.)
OLLIVIER, OSCAR - - -	631	25th Feb. 1868	Improved apparatus and means or method for exhibiting advertisements and affording publicity thereto.
OLSEN, CHARLES OLE - -	3091	8th Oct. 1868	An improved binnacle for iron ships. (Patented by William Edward Newton.)
OMMANNEY, FREDERICK [FRANCIS.]	71	8th Jan. 1868	Forcing and raising water for feeding boilers and for other similar purposes.
ONIONS, JOHN - - -	2371	29th July 1868	Means employed to ascertain the number of passengers or visitors and the amount of money received by omnibus conductors and other persons.
OPPEN, FREDERIC AUGUST [KUNOW WALDEMAR VON.]	3981	31st Dec. 1868	Improvements in revolving breech-loading fire-arms and in cartridges for the same, and in devices attached to the said fire-arms for charging the cartridges. (Communicated by the Colt's Patent Fire-arms Manufacturing Company (Incorporated).)
ORAM, WILLIAM - - -	237	23rd Jan. 1868	Apparatus to be employed for heating buildings and for other heating purposes.
ORAM, WILLIAM - - -	1029	26th March 1868	Certain improvements in hydraulic presses and in the apparatus connected therewith.
ORMROD, OLIVER - - -	1072	30th March 1868	Machinery or apparatus for washing, bleaching, dyeing and scouring hanks and cops of yarns and thread, woven fabrics and other articles.
ORR, MATTHEW BROWN -	1030	26th March 1868	Arrangements and apparatus for drying and preserving animal and vegetable substances. (Communicated by Joseph Bancroft.)
ORRIN, JOSEPH - - -	2847	16th Sept. 1868	Improvements in the method of and apparatus for cutting the edges of books, which apparatus is also applicable for cutting the edges of note paper and for other similar uses.
ORTLIB, FREDERICK - -	2901	20th Aug. 1868	Rotary engines. (Patented by Alfred Vincent Newton.)
OSBORNE, DAVID M. - -	3610	26th Nov. 1868	Harvesting machines. (Patented by William Robert Lake.)
OSGOOD, JAMES M. - -	2494	10th Aug. 1868	An improved machine for making eyelets. (Patented by Bristow Hunt.)
OSMANI, CESARE - - -	245	23rd Jan. 1868	Tanning hides and skins. (Patented by Henry Miller Ragland.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
OSWALD, THOMAS RIDLEY -	2452	5th Aug. 1868	Construction of ships or vessels of war.
OSWALD, WILLIAM RUDD -	2181	9th July 1868	Formation of steam and water tight joints in tubular boilers, surface condensers, and other such like apparatus in which tubes are employed.
OURY, JULES - - - -	1692	22nd May 1868	An improved construction of meter or apparatus for measuring liquids or gases, applicable also for obtaining motive-power.
OUTRIDGE, JOSEPH EDLYN -	2420	1st Aug. 1868	Equilibrium slide valves.
OWEN, EDWARD - - -	3444	13th Nov. 1868	Manufacture of cases for night lights.
OWEN, GEORGE - - -	1992	20th June 1868	Chess boards and chess men.
OWENS, SAMUEL - - -	2035	24th June 1868	Winches and cranes or apparatus for raising or moving heavy bodies.
OXLAND, ROBERT - - -	1240	15th April 1868	Treatment of ores and minerals containing copper, to extract copper therefrom.
OXLAND, ROBERT - - -	2950	25th Sept. 1868	Calcining ores and minerals.
OXLAND, ROBERT - - -	3315	29th Oct. 1868	Treatment of ores and minerals for the extraction of tin.
OYLY, JOHN FRANCIS D' -	1274	18th April 1868	Paddle and other wheels used in air or water, for propelling or driving ships or vessels or machinery.

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PADLEY, EZRA - - -	2785	10th Sept. 1868	Anchors.
PAGE, EDWARD - - -	1238	15th April 1868	Fixing the tines of harrows and other agricultural implements.
PAGE, HENRY - - -	3692	4th Dec. 1868	Nozzles for oil cans and other vessels. (Patented by John Gustavus Rollins.)
PAGE, JOSEPH - - -	1843	5th June 1868	Corkscrews.
PAGE, ROBERT WILLIAM -	1796	1st June 1868	Construction of hand garden engines and hydropulps.
PAGE, WILLIAM SAMUEL -	1039	26th March 1868	Improved mechanical arrangements applicable to steam-boilers and the cylinders of steam and other motive-power engines, for preventing the priming thereof, and for lubricating the pistons and cylinders of engines.
PAGE-DRINO - - - -	1506	7th May 1868	An improvement in throstle frames for spinning flax, tow, hemp, jute, silk, wool or cotton. (Patented by William Edward Gedge.)
PAGET, ARTHUR - - -	1295	21st April 1868	Apparatus for the hauling, tightening or pulling of ropes, cords, chains, bands and other mechanical equivalents, and for the holding or making fast such ropes or other mechanical equivalents, and loosing the same when desired.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PAGET, FREDERICK ARTHUR -	843	12th March 1868	Improvements in constructing ships' compasses and their binnacles, and in preventing the deviations of compasses in iron or steel ships.
PAILLARD, ALBERT - -	2181	3rd July 1868	Manufacture and construction of receptacles for preserves and other provisions. (Patented by Michael Henry.)
PAINE, LEWIS JAMES - -	3901	22nd Dec. 1868	New or improved removable collars and comforters combined.
PALLANT, SAMUEL - - -	3670	2nd Dec. 1868	Fastenings applicable to stays, gaiters and other articles of dress.
PALLISER, WILLIAM - - -	1667	21st May 1868	Improvements in ordnance and in wads to be used therewith.
PALMER, GEORGE HARDING -	1182	8th April 1868	An improved spring brace.
PALMER, JAMES - - -	3904	22nd Dec. 1868	Improvements in the manufacture of steel agricultural and horticultural and other like forks.
PALMER, JAMES BRECKNOCK -	1483	6th May 1868	Manufacture of friction matches and fuseses. (Communicated by Rudolf Herrmann.)
PALMER, JAMES BRECKNOCK -	1762	28th May 1868	Manufacture of matches and fuseses, and of friction surfaces to be used therewith. (Partly communicated by Rudolf Herrmann.)
PALMER, JARVIS - - -	1483	6th May 1868	Manufacture of friction matches and fuseses. (Communicated by Rudolf Herrmann.)
PALMER, JARVIS - - -	1762	28th May 1868	Manufacture of matches and fuseses, and of friction surfaces to be used therewith. (Partly communicated by Rudolf Herrmann.)
PALMER, JOSEPH - - -	2565	17th Aug. 1868	Manufacture of elliptic springs for carriages and other vehicles.
PANTON, PATRICK - - -	3801	26th Nov. 1868	Fire-arms.
PARAF, ALFRED - - -	219	21st Jan. 1868	Liberating the coloring matter of madder and similar vegetable substances from the ligneous matter or cellulose with which it is combined in the plant. (Patented by George Tomlinson Bousfield.)
PARAF, ALFRED - - -	3959	29th Dec. 1868	Extracting the coloring matter of madder root from the ligneous matter of the plant. (Patented by George Tomlinson Bousfield.)
PARAF-JAVAL, EUGÈNE - -	122	14th Jan. 1868	Treatment of woven fabrics for improving the appearance thereof. (Patented by Charles Denton Abel.)
PARAF-JAVAL, EUGENE - -	3026	2nd Oct. 1868	Treatment of fatty matters in order to harden them and apply them to the manufacture of candles, soap and other uses. (Patented by Clinton Edgcumbe Brooman.)
PARAF-JAVAL, MATHIAS -	122	14th Jan. 1868	Treatment of woven fabrics for improving the appearance thereof. (Patented by Charles Denton Abel.)
PARAF-JAVAL, MATHIAS -	3026	2nd Oct. 1868	Treatment of fatty matters in order to harden them and apply them to the manufacture of candles, soap and other uses. (Patented by Clinton Edgcumbe Brooman.)
PARAIRE, EDWARD LOUIS -	2681	29th Aug. 1868	An improvement in the mode of working steam-engines.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PARENT-MONFORT - - -	1506	7th May 1868	An improvement in throstle frames for spinning flax, tow, hemp, jute, silk, wool or cotton. (Patented by William Edward Gedge.)
PARIS, STANISLAUS JOSEPH -	1906	11th June 1868	Certain improvements in valves.
PARK, ROBERT WALLACE -	1043	26th March 1868	Lamps for burning liquid hydrocarbons. (Patented by John Henry Johnson.)
PARKER, EDWARD LAWLEY -	2722	3rd Sept. 1868	Fastenings for braces, belts, bands and other like articles.
PARKER, JAMES - - -	784	6th March 1868	Further improvements in apparatus for obtaining motive-power for engines, by a combination of steam and air, and for the prevention of racing in steam and air marine engines, and for a condenser applicable to steam and air engines, and for other purposes.
PARKER, JAMES - - -	2734	4th Sept. 1868	Further improvements in apparatus for obtaining motive-power for engines, by means of a combination of steam and air, for the prevention of racing in steam and air marine engines, for a condenser applicable to steam and air engines, and for other purposes.
PARKER, JOHN - - -	137	15th Jan. 1868	Textile fabrics.
PARKER, WILBUR FISK - -	2980	29th Sept. 1868	Gas-burners. (Patented by Edward Thomas Hughes.)
PARKES, ALEXANDER - -	1366	25th April 1868	Manufacture of varnishes.
PARKES, ALEXANDER - -	1614	16th May 1868	Manufacture of parkesine or compounds of pyroxyline, to render such materials more suitable for making billiard balls and for other purposes.
PARKES, JOHN JOSEPH - -	3217	21st Oct. 1868	Making stoves for cooking and heating purposes by gas and other means.
PARKINS, JOSEPH - - -	3751	9th Dec. 1868	Machinery for stamping, embossing or printing in colors.
PARKINSON, EDWIN - - -	3776	12th Dec. 1868	Improved means or apparatus to be used in measuring the human body for garments.
PARKS, BENJAMIN - - -	929	19th March 1868	Machinery or apparatus for separating and crushing breeze or cinders in one combined action.
PARLOUR, JOSEPH THOMAS -	1941	13th June 1868	Elevators and apparatus for shovelling, raising and conveying grain, coals, bricks, sand, mortar and other substances.
PARLOUR, JOSEPH THOMAS -	3747	9th Dec. 1868	Adjustable blocks for supporting the keel and bilge of vessels in dock.
PARNACOTT, EDWARD JOSEPH [WILLIAM.]	268	25th Jan. 1868	Manufacture of elastic rollers.
PARR, SAMUEL - - -	1416	30th April 1868	An improved mode of combining certain materials in the construction of walls and the roofs and floors of houses and other buildings.
PARROTT, JAMES - - -	3372	6th Nov. 1868	Machinery for beetling woven fabrics and other materials.
PARRY, JOHN - - -	3578	25th Nov. 1868	Improvements in springs and in the application of the same to mattresses, couches and other upholstery purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PARSON, THOMAS COOKE, [junr.	3027	2nd Oct. 1868	Skates.
PARSONS, JOHN - - -	201	20th Jan. 1868	Improvements in certain parts of double-barrel breech-loading fire-arms.
PARSONS, JOSEPH - - -	3395	9th Nov. 1868	A combined tobacco dish and cigar and spill rack.
PASGNIER, PAUL - - -	2126	3rd July 1868	Machinery or apparatus for the manufacture of paper pulp. (Patented by John Henry Johnson.)
PASQUIER, JEAN ALEXANDRE [EDMOND.	3658	1st Dec. 1868	Carding-engines. (Patented by John Henry Johnson.)
PATCHETT, ISAAC - - -	2296	22nd July 1868	Machinery or apparatus for plaiting, folding or lapping textile fabrics, paper, pattern cards or similar materials.
PATERSON, ALEXANDER SEATON.	3317	30th Oct. 1868	Heels for boots and shoes.
PATERSON, DAVID HILLOCKS -	3712	5th Dec. 1868	Improvements in the process of bleaching, dyeing or scouring textile materials and fabrics, and in the machinery therefor.
PATERSON, GEORGE BERTIE -	988	24th March 1868	Gas-meter indexes.
PATHI, ADOLPHE ACHILLE -	1895	10th June 1868	Pipes used for smoking. (Patented by Alexander Melville Clark.)
PATON, GEORGE - - -	1217	11th April 1868	Looms for weaving.
PATRICK, ALEXANDER - - -	1606	16th May 1868	Gauges or apparatus for ascertaining pressure.
PATRICK, WILLIAM SAMUEL -	3667	4th Dec. 1868	An improved machine for cutting edible roots. (Patented by William Robert Lake.)
PATTERSON, THOMAS - - -	2085	24th June 1868	Winches and cranes or apparatus for raising or moving heavy bodies.
PATTERSON, THOMAS LAW -	2112	2nd July 1868	Obtaining or manufacturing saltpetre, iodine and bromine.
PATTON, WILLIAM - - -	3138	13th Oct. 1868	An improved mode of and means for dyeing hair. (Patented by William Robert Lake.)
PATUREAU, FRANÇOIS - - -	3221	21st Oct. 1868	Reels or bobbins. (Patented by John Henry Johnson.)
PAUL, JACQUES FREDERIC -	2463	6th Aug. 1868	Scissors. (Patented by Alexander Melville Clark.)
PAUL, WILLIAM CARNE - - -	3181	17th Oct. 1868	Apparatus for washing ores and other matters, and the separation of the metals contained therein or combined therewith.
PAULUS, HENRY - - -	975	23rd March 1868	An improved pile driving engine with modifiable length of stroke of the ram, applicable also to other purposes.
PAVEY, FREDERICK ARCHIBALD.	2114	2nd July 1868	An improved marking board for billiards, bagatelle and other games requiring to be scored.
PAVY, EUGÈNE - - -	2117	2nd July 1868	Treating and preparing certain vegetable and animal fibres, to manufacture a new description of fabric or stuff applicable to various useful and decorative purposes.
PAVY, EUGENE - - -	3964	18th Dec. 1868	Preparation or treatment of jute, china grass, cotton and other fibrous materials in the raw state, spun into yarns or woven into fabrics.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PAYNE, EDWARD - - -	3431	12th Nov. 1868	An improved composition for cattle food. (Patented by Charles John Chaplin.)
PAYNE, WILLIAM - - -	2525	12th Aug. 1868	Improvements in steam cocks or valves, also applicable for hot or cold water.
PAYTON, WALTER - - -	2222	14th July 1868	Breech-loading fire-arms.
PEARCE, CHARLES THOMAS -	3067	7th Oct. 1868	Improvements in the means of disinfecting or deodorizing rooms, buildings and ships, applicable also to other such like pur- poses.
PEARCE, RICHARD - - -	1632	19th May 1868	Separation of copper and other metals from silver.
PEARCE, RICHARD - - -	3167	16th Oct. 1868	Separation of copper and other metals from silver and gold, the same being applicable to other metallurgical operations.
PEARCE, THOMAS MASSEY -	15	1st Jan. 1868	Improved engines and generators for the same, to be worked by heated air, steam or other gases or vapours.
PEARMAN, JOHN WILLIAM -	3840	17th Dec. 1868	Production of surfaces for printing music.
PEARMAN, WILLIAM JAMES -	3840	17th Dec. 1868	Production of surfaces for printing music.
PEARSE, JOHN B. - - -	1618	16th May 1868	Apparatus employed in the manufacture of iron and steel. (Patented by William Robert Lake.)
PEARSON, GEORGE - - -	2958	26th Sept. 1868	Improved apparatus for the increase of safety on inclines of railways or tramways.
PEARSON, JOHN - - -	297	28th Jan. 1868	Improvements in refining or purifying oils and in the apparatus employed therein.
PEARSON, JOHN - - -	1383	28th April 1868	Jacquard engines.
PEARSON, MASON - - -	1383	28th April 1868	Jacquard engines.
PEARSON, PETER - - -	2314	23rd July 1868	Certain improvements in the treatment and preparation of cocoa.
PEARSON, WILLIAM - - -	2460	6th Aug. 1868	Looms for weaving.
PEASLEY, CHARLES DEARBORN	1912	11th June 1868	An improved adhesive cement applicable to uniting china, leather and other hard and soft substances. (Patented by William Edward Newton.)
PEEL, JOHN - - -	3095	9th Oct. 1868	An improved picker for looms for weaving.
PELARD, AUGUSTE - - -	1597	15th May 1868	Improved portable hydrotherapeutic apparatus.
PELOUZE, EUGÈNE - - -	2157	7th July 1868	Improvements in the treatment of phos- phates of lime and in obtaining products therefrom. (Patented by Astley Paston Price.)
PELTIER, EMILE - - -	2131	3rd July 1868	Manufacture and construction of receptacles for preserves and other provisions. (Patented by Michael Henry.)
PEMBERTON, GEORGE ARTHUR	1454	4th May 1868	Alarm bells, call bells and other bells.
PEMBERTON, HENRY - - -	1799	1st June 1868	Manufacture of alum and other aluminous compounds. (Communicated by Charles Denton Abel.)
PEMBERTON, THOMAS - - -	1368	25th April 1868	Supports for fire-irons.
PEMBERTON, THOMAS - - -	1454	4th May 1868	Alarm bells, call bells and other bells.
PENDLEBURY, JOHN TOMLIN- [SON.	2513	12th Aug. 1868	An improved valve motion applicable to direct-action steam pumps and similar purposes.
PENDLEBURY, THOMAS - - -	2518	12th Aug. 1868	An improved valve motion applicable to direct-action steam pumps and similar purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PENDRED, VAUGHAN - -	2177	9th July 1868	Manufacture of wrought iron and steel.
PENISTON, FERGUS - -	2755	7th Sept. 1868	Improvements in knitting and in the machinery to be used in knitting. (Patented by Alfred Vincent Newton.)
PENOTIÈRE, WILLIAM LA -	3549	23rd Nov. 1868	An improved construction of lock.
PENRICE, HERBERT NEWTON -	1511	8th May 1868	Machinery employed in forming tunnels and galleries in rocks.
PERKINS, CHARLES LAWRENCE	708	2nd March 1868	Improved apparatus for burning hydrocarbons for heating purposes. (Patented by William Edward Newton.)
PERKINS, LOFTUS - - -	1379	27th April 1868	Manufacture of wrought metal wheels.
PERKINS, LOFTUS - - -	1381	27th April 1868	Tubular steam-boilers.
PERKINS, THOMAS - - -	700	29th Feb. 1868	Apparatus for raising and stacking straw and other agricultural produce.
PERKINS, THOMAS - - -	2736	4th Sept. 1868	Elevators or apparatus to raise agricultural produce on to carts or stacks.
PERKINS, WILLIAM - - -	535	18th Feb. 1868	An improved preparation or compound applicable for insulating electric conductors, and for such purposes as india-rubber and other vulcanizable gums are applicable.
PERRET, CHARLES EMILE -	1124	3rd April 1868	A new or improved process and apparatus for refining camphor. (Patented by Charles Denton Abel.)
PERRET, DAVID - - -	2623	14th Sept. 1868	Apparatus for drawing off or bottling liquids. (Patented by Alexander Melville Clark.)
PERRET, MICHEL - - -	3895	21st Dec. 1868	An improved construction of cock or tap. (Patented by William Edward Gedge.)
PERRET, PAUL - - -	2645	25th Aug. 1868	Improvements in breech-loading fire-arms and in the mode of capping or priming the same. (Patented by Alexander Melville Clark.)
PERRETT, JOHN - - -	646	26th Feb. 1868	Bottles and apparatus for feeding infants.
PERREY, CHARLES AIMÉ -	3891	21st Dec. 1868	Improvements in sharpening and setting saws, and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
PERROT, ADOLPHE - - -	271	25th Jan. 1868	Apparatus for melting and heating metals and other substances. (Patented by John Henry Johnson.)
PERRY, ARTHUR - - -	3839	17th Dec. 1868	Lighting or illuminating stained, painted or colored windows.
PERRY, JOHN - - -	1158	6th April 1868	Improvements in packing bottles and similar articles, and in cases or holders therefor.
PERRY, JOHN - - -	1985	19th June 1868	Packing bottles and similar articles.
PERRY, STEPHEN - - -	1041	26th March 1868	Letter clips, bill files and other similar clips or suspenders.
PERRY, STEPHEN - - -	1674	21st May 1868	Letter clips, bill files and other similar clips or suspenders.
PETRIE, JOHN, junior - -	81	8th Jan. 1868	Improvements in "brats" or travelling surfaces for conveying wool and other fibrous materials out of or into washing machines, which improvements are also applicable to other machines in which similar travelling surfaces are required.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PETRIE, JOHN, junior - -	666	27th Feb. 1868	Machinery for washing wool and other fibrous materials.
PETRIE, JOHN, junior - -	874	14th March 1868	Machinery for washing wool and other fibrous materials.
PETRIE, JOHN, junior - -	1837	4th June 1868	Improvements in obtaining hydraulic motive-power, which improvements are also applicable to the propulsion of vessels by jets or streams of water.
PETRIE, JOHN, junior - -	2527	12th Aug. 1868	Machinery or apparatus for washing wool and other fibrous materials.
PETRIE, JOHN, jun <sup>r</sup> . - -	2960	26th Sept. 1868	Machinery or apparatus for washing wool and other fibrous materials.
PETRIE, JOHN, jun <sup>r</sup> . - -	3617	27th Nov. 1868	Machinery or apparatus for washing or scouring and dyeing wool and other fibrous materials.
PETRIE, JOHN, junior - -	3865	18th Dec. 1868	Improvements in apparatus for warming apartments, conservatories and other structures, applicable also to evaporating purposes.
PETTMAN, JOHN - - -	386	4th Feb. 1868	Percussion fuses suitable for projectiles to be fired from rifled ordnance.
PEYTON, EDWARD - - -	2661	27th Aug. 1868	Metallic bedsteads.
PEYTON, EDWARD - - -	3159	15th Oct. 1868	Spring mattresses applicable to bedsteads and other articles of furniture.
PFEIFFER, LOUIS - - -	3638	30th Nov. 1868	An improved fastening or lock for bags and other similar articles. (Communicated by Auguste Schubert.)
PFLAUM, JOHN FREDERICK [AUGUSTUS.	2610	21st Aug. 1868	Machinery for rolling disc wheels and hoops or tyres.
PFLAUM, JOHN FREDERICK [AUGUSTUS.	3107	9th Oct. 1868	Machinery for reducing bulldog or other hard substances.
PHILIP, GEORGE WILLIAM -	1978	18th June 1868	Machinery for drawing rovings and spinning yarns of cotton, wool and other fibres. (Patented by George Frederick Redfern.)
PHILIPP, ADOLPH - - -	428	8th Feb. 1868	An improved apparatus to be employed as a combined cigar ash and light holder, and "whist" or other game marker.
PHILIPPSON, FERDINAND CARL	3373	6th Nov. 1868	Pumps and fire-engines.
PHILLIPS, JAMES EDWIN -	3564	23rd Nov. 1868	Improvements in sewing-machines, parts of which improvements are applicable to other purposes.
PHILLIPS, JAMES EDWIN -	3683	3rd Dec. 1868	Reaping and mowing machines.
PHILLIPS, JOHN - - -	2573	17th Aug. 1868	Stoves and fire-places.
PHILLIPS, JOHN - - -	3176	16th Oct. 1868	Means or apparatus employed for warming and ventilating buildings.
PICK, IGNAC - - - -	3955	29th Dec. 1868	Manufacture of travelling and hand bags.
PICKARD, WILLIAM - - -	461	11th Feb. 1868	An improvement in woollen condensing machinery.
PICKERING, ARTHUR - - -	294	28th Jan. 1868	Machinery for cutting out, stamping and embossing lozenges, jujubes and various articles of fancy confectionery, and other articles from soft or plastic substances or materials.
PICKERING, BENJAMIN - -	1497	7th May 1868	Apparatus used in expressing oils and fatty matters from seeds and from substances in which such matters are contained.



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## ALPHABETICAL INDEX OF PATENTERS

[Pin]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PICKERING, JONATHAN - -	2737	5th Sept. 1868	Apparatus for raising and lowering weights.
PICKIN, JOSEPH - - -	1804	2nd June 1868	A new or improved material for enamelling iron so as to prevent corrosion and incrustation.
PICKLES, JOHN - - -	3766	11th Dec. 1868	Spinning and twisting frames.
PIDDING, WILLIAM - -	811	9th March 1868	Improvements in pockets or purses formed or placed in gloves, and in the mode of securing railway tickets, money or other contents deposited therein for safe keeping.
PIDDING, WILLIAM - -	1825	3rd June 1868	Improvements in reels or receivers and in the modes of placing thereon needles threaded with twisted strands and other fibrous materials, and in the application of certain known machinery for winding the twisted strands or other fibrous material on such and ordinary (when the needles shall have been threaded) reels or receivers.
PIDDING, WILLIAM - -	3888	21st Dec. 1868	Mechanism applicable to locomotion.
PIEPER, CARL - - -	633	25th Feb. 1868	Machinery for grinding or preparing wood for the manufacture of paper. (Communicated by Carl Gotthelf Fischer.)
PIEPER, CARL - - -	635	25th Feb. 1868	Reaping-machines.
PIERCEY, GEORGE - - -	3428	11th Nov. 1868	A new or improved safety stay for the shafts of carriages.
PIGEON, NARCISSE - - -	3171	16th Oct. 1868	Manufacture of syrup and sugar. (Patented by William Edward Newton.)
PIGGOTT, GEORGE - - -	1132	3rd April 1868	Electric telegraphs.
PIGGOTT, WILLIAM PETER -	1026	25th March 1868	Improvements in transmitting electric telegraph messages and in apparatus employed therein.
PIGOTT, GEORGE WEST [ROYSTON.]	624	25th Feb. 1868	Coated or covered wire.
PIKE, FREDERICK R. - -	2268	18th July 1868	Propelling machinery for canal boats and other vessels. (Patented by William Robert Lake.)
PILKINGTON, WOODFORD -	1445	2nd May 1868	Machinery or apparatus for drying wool or for discharging moisture from fibrous granular or other materials. (Patented by John Leggett Budden.)
PILLINER, ALFRED COLERICK	300	28th Jan. 1868	Machinery for obtaining motive-power, applicable also to measuring, raising, exhausting, forcing and compressing fluids.
PILLINER, ALFRED COLERICK	3940	24th Dec. 1868	Machinery for obtaining motive-power, applicable also to measuring, raising, exhausting, forcing and compressing fluids.
PILLING, JAMES - - -	103	11th Jan. 1868	Certain improvements in machinery or apparatus to be employed in spinning, twisting or doubling cotton, silk or other fibrous substances.
PIN, ANTHELME - - -	2087	29th June 1868	Manufacture of shawls and other like fabrics. (Patented by Clinton Edgcumbe Broome.)
PINE, BENJAMIN FRANKLIN -	2998	30th Sept. 1868	Improvements in the manufacture of white lead, and in the production of carbonic acid gas for the said manufacture and for other useful purposes. (Patented by John Henry Johnson.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PINFOLD, JONATHAN DUMBLE- [TON.	2111	2nd July 1868	Manufacture of and apparatus for making bricks, tiles and other articles, produced by expressing through moulding orifices the clay or materials of which they are composed.
PINFOLD, JONATHAN DUMBLE- [TON.	2823	14th Sept. 1868	Improvements in machinery or apparatus for grinding grain and in the means for driving or actuating the same.
PINKNEY, WILLIAM - -	948	20th March 1868	An improved mode of applying a jet or jets of steam to blacksmiths' fires, cupolas, mill furnaces, smelting and refining works, for directing hot or cold blast thereinto, applicable also for ventilating mines and buildings, and for other purposes to which a blast is applicable.
PIPER, JOHN EDWIN - -	1579	14th May 1868	A new or improved oil for lubricating machinery.
PIQUET, HONORÉ ETIENNE -	1896	10th June 1868	A new and improved apparatus for shuffling and dealing cards. (Patented by Henri Adrien Bonneville.)
PITON, JOHN GEORGE - -	2906	21st Sept. 1868	An improved mode of bushing the sheaves of blocks employed for lifting heavy weights, also of bushing rollers intended to carry heavy weights, to enable such said sheaves and rollers to move more freely and render them more durable.
PITTAR, PARKE - - -	116	13th Jan. 1868	Mineral and rock drilling apparatus.
PLANT, AMZI PERRIN - -	3987	31st Dec. 1868	Improvements in revolving fire-arms and in cartridges for the same and for other fire-arms. (Patented by William Edward Newton.)
PLANT, EBENEZER HOWARD -	3987	31st Dec. 1868	Improvements in revolving fire-arms and in cartridges for the same and for other fire-arms. (Patented by William Edward Newton.)
PLANT, JAMES - - -	1017	25th March 1868	Dram flasks.
PLATNER, HIRAM - - -	1580	14th May 1868	Manufacture of felt hats. (Patented by William Edward Newton.)
PLATT, WILLIAM HENRY -	3756	10th Dec. 1868	Construction of shuttles.
PLATTS, GEORGE - - -	38	6th Jan. 1868	An improved mode or method of and apparatus for laying fog signals on railways.
PLATTS, RICHARD - - -	790	7th March 1868	Machinery for etching or engraving rollers for printing.
PLESSNER, JOHANN MAXIMI- [LIAN.	1156	6th April 1868	Mode of and apparatus for obtaining motive-power.
PLEWS, JOHN - - -	1193	9th April 1868	Steam-engines.
PLIMSOLL, SAMUEL - -	2430	1st Aug. 1868	Means or apparatus for unloading coals from railway waggons.
POCOCK, ALFRED WILLMER -	1362	25th April 1868	Working valves of steam and other engines.
POCOCK, CHARLES ASHWELL [BOTELAR.	3810	15th Dec. 1868	Construction of bedsteads and leg rests for railway carriages.
POCOCK, LEWIS, the younger -	641	26th Feb. 1868	An improvement in book binding.
POIRIER, ZACHARIE - -	1652	20th May 1868	A new or improved safety stopper for bottles and other vessels.
POIRIER, ZACHARIE - -	3780	12th Dec. 1868	A new or improved safety stopper for bottles and other vessels.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
POISNEL, JEAN MARIE - -	908	17th March 1868	Manufacture of straps, belts, bands, pipes and other articles of india-rubber or similar fabric.
POISNEL, JEAN MARIE - -	908	17th March 1868	Manufacture of coverings for the feet.
POLLACK, HEINRICH - -	2143	6th July 1868	Sewing-machines. (Patented by Peter Jensen.)
POLLACK, HEINRICH - -	3808	26th Nov. 1868	Breech-loading fire-arms.
POLLARD, WILLIAM GAMBLE -	140	15th Jan. 1868	Improvements in the manufacture of knitted reversible gaiters and bootakins for children, and in mitts and armlets for ladies, gentlemen or children.
POLLOCK, JOHN - - -	1638	19th May 1868	Instruments or apparatus for drawing corks from bottles.
POLLOCK, ROBERT - - -	2336	25th July 1868	Arrangements or apparatus for preventing smoke in connection with boiler furnaces.
POMMIER, CHARLES EMILE -	2821	14th Sept. 1868	An improved size or compound for treating or sizing paper.
PONSARD, AUGUSTE - -	2334	24th July 1868	Improvements in the manufacture of cast and wrought iron and steel, and in the furnaces employed therefor. (Patented by John Henry Johnson.)
PONTCHALON, EDOUARD DES [FRANÇOIS DE.	1	1st Jan. 1868	Apparatus for regulating the speed of steam and other engines, and for indicating the power of the same. (Patented by William Robert Lake.)
PONTIFEX, CHARLES - -	72	8th Jan. 1868	Presses or apparatus for expressing wort from spent hops, the same being applicable for expressing fluids from other matters.
POOLE, JOHN - - -	1067	28th March 1868	Coating iron, steel and such like surfaces, and protecting and preserving them from the corrosive action of sea or salt water, and the oxidizing influences of damp air, wet and moisture.
POPAED, EDOUARD NICOLAS -	3262	24th Oct. 1868	An improved glove fastening. (Patented by William Edward Gedge.)
POPE, THOMAS - - -	971	23rd March 1868	Braces or suspenders. (Communicated by Charles H. Cleveland.)
POPE, THOMAS - - -	1545	12th May 1868	An improved curry-comb.
POPPENBURG, JOHANN VON [DER.	1950	15th June 1868	Breech-loading fire-arms.
POPPER, JOSEF - - -	2726	4th Sept. 1868	Apparatus for preventing incrustations from collecting on the sides, flues or tubes of steam or other boilers. (Patented by George White.)
POSENER, ADOLPHE - -	3209	20th Oct. 1868	Holders for glass and other globes or shades for gaseliers, chandeliers and other analogous purposes.
POSENER, DAVID - - -	3209	20th Oct. 1868	Holders for glass and other globes or shades for gaseliers, chandeliers and other analogous purposes.
POSTILL, FRANCIS - - -	155	16th Jan. 1868	Kilns or ovens for burning or baking bricks, earthenware, limestone, pottery and other ceramic articles.
POTTER, HAROLD - - -	2675	29th Aug. 1868	Certain improvements in bleaching cotton and other fabrics and fibres.
POTTER, HENRY TATEM -	1018	25th March 1868	Spinning machinery. (Patented by Alfred Vincent Newton.)

[Pot]

## AND APPLICANTS FOR PATENTS OF INVENTION.

[Pri]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
POTTLE, WILLIAM HENRY -	3741	8th Dec. 1868	Umbrellas, parasols and sunshades.
POTTS, FERDINAND - -	22	3rd Jan. 1868	Certain improvements in welded iron tubes for gas and other purposes where strength and lightness are required.
POUILLEY, JEAN JOSEPH -	1740	26th May 1868	Apparatus for dressing millstones. (Patented by Alexander Melville Clark.)
POULET, JEAN JOSEPH [ADOLPHE.]	154	16th Jan. 1868	A new or improved system of moveable switches, tongues or rails for the crossings and intersections of the permanent way of railways. (Patented by Charles Denton Abel.)
POUNCY, JOHN - - -	3849	17th Dec. 1868	Production of plain or coloured photographic and other pictures.
POWERS, ORVILLE WATSON -	3000	30th Sept. 1868	Improvements in sewing-machines, applicable to other machines worked by foot power. (Communicated by Greenleaf Stackpole.)
POYNTER, JOHN EDGAR - -	1670	21st May 1868	Manufacture of soap.
POYNTER, JOHN EDGAR - -	2112	2nd July 1868	Obtaining or manufacturing saltpetre, iodine and bromine.
PRATT, DANIEL RICE - -	2621	22nd Aug. 1868	An improved mode of and means for uniting the ends of railway rails. (Patented by William Robert Lake.)
PRENTICE, EDWARD HENRY -	2919	23rd Sept. 1868	Improvements in treating sewage and impure or polluted waters, and in the preparation of materials to be employed for that purpose.
PRENTICE, JOHN HILL - -	281	27th Jan. 1868	Machinery for forming hat bodies, skirts and other articles of wool and other fibrous materials. (Patented by William Edward Newton.)
PRENTICE, JOHN HILL - -	685	28th Feb. 1868	Improved apparatus for drying and finishing felted goods and fabrics. (Patented by William Edward Newton.)
PREST, EDWARD - - -	3900	21st Dec. 1868	Currying and dressing leather. (Communicated by Thomas Saunby.)
PREST, JOHN - - -	2165	8th July 1868	Certain improvements in agricultural apparatus termed "chaff cutters."
PRESTI, BARON LUDWIG AL- [MOS LO.]	3234	22nd Oct. 1868	Improvements in the construction of railways and in the rolling stock and structures therefor. (Patented by Charles Denton Abel.)
PRESTIGE, JOHN - - -	3783	12th Dec. 1868	Engine lubricators.
PRESTON, FRANCIS - - -	2718	3rd Sept. 1868	Stop blocks for railways.
PRESTON, GEORGE - - -	3783	12th Dec. 1868	Engine lubricators.
PRESTON, ROBERT EMMET -	3017	1st Oct. 1868	An improved mode of constructing the door frames of furnaces for steam generators. (Patented by William Robert Lake.)
PREVETT, LOUISA - - -	26	3rd Jan. 1868	An improved receptacle for containing needles, thread and other articles.
PRÉVOST, EMILE - - -	2951	25th Sept. 1868	Electro-magnets.
PRÉVOST, EMILE - - -	3078	8th Oct. 1868	A new mode or method of controlling restive and vicious horses.
PREWITT, LAURA MARY -	3494	17th Nov. 1868	Stays or bodices.
PRICE, ASTLEY PASTON -	1025	25th March 1868	Improvements in the treatment of ores and in apparatus or means employed therein.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PRICE, ASTLEY PASTON - -	1263	17th April 1868	Preparation and use of anæsthetics.
PRICE, ASTLEY PASTON - -	2157	7th July 1868	Improvements in the treatment of phosphates of lime and in obtaining products therefrom. (Communicated by <i>Eugène Pelouze and Lucien Dusart.</i> )
PRICE, DANIEL - - -	772	6th March 1868	Apparatus for combing or cleaning animals.
PRICE, DAVID - - -	1694	22nd May 1868	Improvements in the construction and arrangement of floral devices and in the apparatus employed therein. (Patented by <i>Robert Kansow Bowley.</i> )
PRICE, DAVID SIMPSON - -	3911	22nd Dec. 1868	Manufacture of iron and steel.
PRICE, EDWARD - - -	3657	1st Dec. 1868	A new or improved combined shirt front and collar.
PRICE, GEORGE - - -	1615	16th May 1868	Pianos and other keyed musical instruments.
PRICE, JAMES - - -	1603	15th May 1868	Improvements in testing the durability and strength of rails, and for ascertaining the efficiency of the various parts, forms and arrangements of permanent way of railways, and in the machinery or apparatus employed therefor.
PRICE, JOHN THOMAS - -	665	27th Feb. 1868	Pens and pen and pencil holders. (Patented by <i>William Edward Newton.</i> )
PRICE, LEWIS - - -	2459	6th Aug. 1868	Spring slides for candlesticks.
PRICE, STROTHER - - -	247	23rd Jan. 1863	An improved mode of and means or apparatus for turning on and off the supply of gas to houses, also applicable to turning on and off the supply of other fluids.
PRICHARD, JOHN MORETON -	3500	18th Nov. 1868	Reservoir or fountain pen-holder.
PRIDEAUX, THOMAS - -	3571	24th Nov. 1868	Construction of sea walls and breakwaters.
PRIEST, ALLEN - - -	3481	16th Nov. 1868	Carding-engines technically known as "scribblers" or "breakers."
PRIEST, EDWARD - - -	3481	16th Nov. 1868	Carding-engines technically known as "scribblers" or "breakers."
PRIESTLEY, THOMAS - -	3377	26th Oct. 1868	Looms for weaving.
PRINCE, ALEXANDER - -	1556	13th May 1868	Improvements in telegraphic communication by pneumatic means, and in the apparatus employed therein.
PRINCE, ALEXANDER - -	1849	5th June 1868	Manufacture of metal castings. (Communicated by <i>Edward L. Brown.</i> )
PRINCE, ALEXANDER - -	3786	12th Dec. 1868	Treatment of ores of gold and silver, and of quartz and silicious substances, in order to obtain and apply the products therefrom to various useful purposes. (Communicated by <i>Anthony Leonard Fleury.</i> )
PRINCE, ALEXANDER CHARLES [MONTAGUE.]	269	25th Jan. 1868	A new or improved bell pull for door bells. (Communicated by <i>Sterling Bunsell and Louis Hillebrand.</i> )
PRINCE, ALEXANDER CHARLES [MONTAGUE.]	1556	13th May 1868	Improvements in telegraphic communication by pneumatic means, and in the apparatus employed therein.
PRINCE, ALEXANDER CHARLES [MONTAGUE.]	2345	25th July 1868	A new or improved bell pull for door bells. (Communicated by <i>Sterling Bunsell and Louis Hillebrand.</i> )

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[Pyk]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PRINCE, WILLIAM HENRY -	141	16th Jan. 1868	Machinery for clearing and smoothing yarn and thread.
PRINCE, WILLIAM HENRY -	2194	11th July 1868	Machinery and apparatus for clearing, smoothing, stretching and finishing yarn and thread.
PRINDLE, LYMAN BALDWIN -	1955	15th June 1868	Constructing chairs and rails which form continuous rails for railroads.
PROCTOR, GEORGE KENDALL -	8722	7th Dec. 1868	Rooms and apparatus for photographing by artificial light. (Patented by William Robert Lake.)
PROCTOR, WILLIAM FASH -	1898	10th June 1868	Improved embroidery apparatus to be applied to sewing-machines. (Communicated by the Singer Manufacturing Company (Incorporated)).
PROSSER, THOMAS - - -	2166	8th July 1868	Means or apparatus for evaporating and condensing liquids. (Patented by William Brookes.)
PROSSER, THOMAS - - -	2396	30th July 1868	Improvements in distillation and in the means or apparatus employed therein.
PROVOST, LOUIS LÉON HENRI	3390	7th Nov. 1868	Improvements in the separation of solid matters contained in liquids, and in apparatus for the same. (Patented by Alexander Melville Clark.)
PROWETT, WILLIAM - - -	3303	26th Oct. 1868	Knitting machines.
PUGH, WILLIAM - - -	3678	3rd Dec. 1868	Construction of cataract and other lenses for defective visions.
PULVERMACHER, ISAC LOUIS -	773	6th March 1868	Apparatus or means for producing, applying and ascertaining the power of electric currents.
PULVERMACHER, ISAC LOUIS -	2740	5th Sept. 1868	Apparatus or means for producing and applying electric currents.
PURDEY, JAMES - - -	2319	23rd July 1868	Fire-arms.
PURICELLI, GIOVANNI BAT- [TISTA.	2204	13th July 1868	Apparatus for printing or endorsing.
PUTNAM, SILAS SAFFORD -	1110	1st April 1868	Machinery for manufacturing horse-shoe nails. (Patented by William Robert Lake.)
PYE, ANNIE - - - -	1101	1st April 1868	An improved appliance for protecting trousers from mud. (Communicated by Henri Fritz Fritch.)
PYKE, ALFRED - - - -	1925	12th June 1868	Shirt studs, buttons and other fastenings of a similar nature.
PYKE, LIONEL - - - -	1925	12th June 1868	Shirt studs, buttons and other fastenings of a similar nature.

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## ALPHABETICAL INDEX OF PATENTEEES

[Ram]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
<b>Q.</b>			
QUARM, THOMAS - - -	1105	1st April 1868	Cooking apparatus.
QUESTIENNE, EMILE - -	1320	22nd April 1868	Construction of "concaves" or breasting for the beating drums of thrashing machines. (Patented by Hunter Henry Mardock.)
QUÉTIL, CHARLES JULIEN -	347	31st Jan. 1868	Improvements in steam-engines and in parts connected therewith. (Patented by Alexander Melville Clark.)
QUICK, JOSEPH, the younger -	3848	17th Dec. 1868	Construction of pistons.
<b>R.</b>			
RADCLIFFE, JAMES - - -	321	30th Jan. 1868	Manufacture of puddled iron and steel into finished bars, plates or other forms.
RADCLIFFE, JAMES - - -	1157	6th April 1868	Processes and means employed in the manufacture of iron and steel.
RADCLIFFE, JAMES - - -	2381	29th July 1868	Machinery or apparatus employed in the manufacture of iron and steel.
RAE, JAMES - - - -	1194	9th April 1868	Improvements in the construction of railway wheels and in the axles and bearings for the same.
RAE, JAMES - - - -	3195	19th Oct. 1868	Carts for removing refuse matter from roads and for watering the same.
RAE, MARTIN - - - -	1858	6th June 1868	Lamps.
RAGLAND, HENRY MILLER -	245	23rd Jan. 1868	Tanning hides and skins. (Communicated by Cesare Osmani.)
RAINE, JOSEPH - - - -	2280	20th July 1868	An improved method of and apparatus for obtaining panoramic pictures by means of photography.
RAKOWSKI, CASIMIR - - -	1124	3rd April 1868	Lamps or apparatus for lighting or illuminating purposes. (Patented by John Garrett Tongue.)
RAMMELL, THOMAS WEBSTER	2608	21st Aug. 1868	Rotary or centrifugal machines for acting upon air, water and other fluids, and communicating motive-power thereby.
RAMSAY, ROBERT - - - -	3047	6th Oct. 1868	Construction of knee caps for horses.
RAMSBOTTOM, EDWARD - -	3766	11th Dec. 1868	Spinning and twisting frames.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[Raw]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RAMSBOTTOM, JOHN - -	15	1st Jan. 1868	Improved engines and generators for the same, to be worked by heated air, steam or other gases or vapours.
RAMSBOTTOM, JOHN - -	2956	26th Sept. 1868	Apparatus for communicating between the passengers, guard and engine driver of a railway train.
RAMSCAR, ALFRED WILLIAM -	980	23rd March 1868	Breech-loading fire-arms and cartridges.
RAMSDEN, EDWARD ARCHI- [BALD.]	3765	10th Dec. 1868	Harmoniums and other musical instruments.
RAMSDEN, JOHN CARTER -	125	14th Jan. 1868	Mechanism or apparatus of looms for producing a certain class of fancy fabrics.
RAMSDEN, JOHN CARTER -	2242	16th July 1868	Mechanism or apparatus of looms for producing a certain class of fancy fabrics.
RAMSEY, ROBERT - - -	638	25th Feb. 1868	Signal-indicators applicable to mining and other purposes.
RAMSTEDT, OTTO CARL - -	3042	6th Oct. 1868	An improved enamel applicable to wood, paper, textile fabrics and other surfaces, to render them impervious to spirits, oils, gases or other similar fluids. (Patented by Nicolas Tchepelevsky.)
RANDALL, JOHN - - -	2092	30th June 1868	An improved carriage to be propelled by the manual action of the passenger or passengers.
RANDALL, JOHN CLAYTON -	3228	22nd Oct. 1868	A new mode of and means or apparatus for facilitating the capture of whales and other fish or animals. (Patented by Frederick Bennett and Richard Ward.)
RANK, JAMES - - - -	696	29th Feb. 1868	A new or improved fire-escape.
RANKINE, WILLIAM JOHN [MACQUORN.]	402	6th Feb. 1868	Improvements in condensing steam and in apparatus therefor.
RANSOM, FRANKLIN - -	2795	10th Sept. 1868	Condensing apparatus for steam-engines. (Patented by William Robert Lake.)
RANSOME, ALLEN - - -	3650	30th Nov. 1868	An improvement in the construction of circular saw benches.
RANSOME, FREDERICK - -	3279	26th Oct. 1868	Preserving and hardening stone, brick, cement and other building materials.
RAPIER, RICHARD CHRISTO- [PIER.]	2523	12th Aug. 1868	Improvements in electric clocks and in apparatus connected therewith.
RAPSON, JOSEPH - - -	2493	10th Aug. 1868	Improvements in the manufacture of paper bags and in the means of closing or fastening the same. (Patented by Thomas Corfield.)
RATCLIFFE, JOSEPH - -	2403	31st July 1868	Machinery for increasing the motive-power of steam-engines and all other motive engines.
RAVEL, PIERRE JOSEPH - -	3479	16th Nov. 1868	An improved steam generator.
RAWLINS, WASHINGTON CHAM- [PION.]	3213	20th Oct. 1868	Means and apparatus to enable boilers and furnaces to heat expeditiously and consume their smoke, and generate steam more quickly than heretofore.
RAWNSLEY, EDWARD - -	1269	18th April 1868	An improved means or apparatus for lubricating the spindles and other parts of machinery used for spinning or twisting wool, cotton, mohair, alpaca or other fibrous substances.
RAWORTH, JOHN SMITH -	505	15th Feb. 1868	An improved mode of connecting and disconnecting revolving cylindrical surfaces.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RAWORTH, JOHN SMITH -	1771	29th May 1868	Certain improvements in machinery for the manufacture of roll or twist tobacco.
RAWSTHORN, JOHN - -	707	2nd March 1868	Machinery for dressing millstones.
RAWSTHORN, JOHN - -	2394	30th July 1868	Machinery for dressing millstones.
RAY, RICHARD - - -	1958	16th June 1868	An improved system and apparatus for registering the numbers of passengers travelling in or on omnibuses and other conveyances.
RAY, RICHARD - - -	3827	16th Dec. 1868	An improved system and apparatus for registering the numbers of passengers travelling in or on omnibuses and other conveyances.
RAYMOND, FITCH - - -	3609	26th Nov. 1868	Paddle-wheels for steam-ships. (Patented by William Robert Lake.)
RAYNER, ROBERT - - -	1809	16th May 1868	Apparatus employed for cooking, boiling, melting and evaporating purposes. (Communicated by Sarah Elizabeth Saul.)
RAYNER, ROBERT - - -	1684	21st May 1868	Frictional gearing. (Communicated by Albin Warth and Eberhard Faber.)
READ, SAMUEL - - -	418	7th Feb. 1868	Improvements in finishing paper and textile fabrics, and in the machinery or apparatus connected therewith.
READ, WILLIAM THOMAS -	3108	9th Oct. 1868	Improvements in treating bottles to prepare them to receive beer or other fermented liquor, and in apparatus employed in such treatment.
READING, GEORGE EDWARD -	153	16th Jan. 1868	Improved busk fasteners.
RÉAULX, HYACINTHE DE FONT	2391	30th July 1868	An improved process for obtaining heliographic plates for printing. (Patented by George Davies.)
REDDICLIFFE, FRANCIS - -	1848	5th June 1868	Improved mechanical arrangements applicable to pump buckets and partially applicable to pistons.
REDFERN, GEORGE FREDERICK	1978	18th June 1868	Machinery for drawing rovings and spinning yarns of cotton, wool and other fibres. (Communicated by George William Philip.)
REDGATE, WILLIAM - - -	858	13th March 1868	Manufacture of lace in twist-lace machines.
REDGATE, WILLIAM - - -	3025	2nd Oct. 1868	Manufacture of lace made on bobbin net or twist lace machines.
REDMAN, WILLIAM - - -	933	19th March 1868	Means or apparatus for the formation or building of cop bottoms in machinery for spinning and twisting cotton or other fibrous substances.
REDON, JEAN DE - - -	3242	23rd Oct. 1868	Improvements in the manufacture of cigars and cigarettes, and in the apparatus for effecting the same.
REED, GEORGE POTTER - -	1797	1st June 1868	Watches.
REEVE, WILLIAM GEORGE -	3920	23rd Dec. 1868	Inkstands.
REFFITT, JOSEPH - - -	3964	30th Dec. 1868	Machinery or apparatus for cutting and shaping wood or other materials.
REHFUSS, GEORGE - - -	1096	31st March 1868	Sewing-machines. (Patented by John Henry Johnson.)
REICHENBACH, MARC - -	1104	1st April 1868	Construction of centrifugal ventilators or fans. (Patented by George Davies.)
REID, ALEXANDER - - -	3361	5th Nov. 1868	Machinery or apparatus for rolling tobacco.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
REID, JOHN - - -	1335	23rd April 1868	Improvements in the manufacture of casks and other similar articles, and in the machinery or apparatus connected therewith.
REID, JOHN WYATT - -	3647	30th Nov. 1868	Bleaching vegetable fibre.
REID, WILLIAM - - -	3257	24th Oct. 1868	Improvements in trucks or waggons for the conveyance of cattle on railways, and in apparatus or means to be employed for feeding and watering the cattle during the journey, and for ventilating the trucks or waggons.
REIDY, JAMES - - -	1752	28th May 1868	An improved pick or pickaxe for excavating, mining and other purposes.
REINACH, JACOB - - -	2413	31st July 1868	A new file-planing machine.
REINACH, JACOB - - -	2414	31st July 1868	A new file-cutting machine.
REINHARDT, ALBERT EMILE -	68	8th Jan. 1868	A new mode of laying metal leaves on printed surfaces and the apparatus connected therewith. (Patented by Louis Simon.)
REISSMANN, HENRY - -	2553	15th Aug. 1868	A new or improved apparatus or fountain for dispersing or throwing liquids. (Communicated by Friedrich Wilhelm Bossert.)
REMINGTON, SAMUEL - -	2377	29th July 1868	Improvements in breech-loading fire-arms, parts of which improvements are applicable to other fire-arms. (Patented by William Robert Lake.)
REMINGTON, SAMUEL - -	3859	18th Dec. 1868	An improved method of manufacturing the shoe or breech-piece for breech-loading fire-arms.
REMINGTON, WILLIAM HENRY	3117	10th Oct. 1868	An improved process and means for electroplating with nickel. (Patented by William Robert Lake.)
REMY, FERDINAND - - -	628	25th Feb. 1868	An improved steel seat or chair.
RENARD, CLAUDE - - -	3895	21st Dec. 1868	An improved construction of cock or tap. (Patented by William Edward Gedge.)
RENAUDIN, STANISLAS RENÉ -	2435	3rd Aug. 1868	An improved offensive and defensive war machine.
RENAULT, FELIX HONORÉ -	556	19th Feb. 1868	An improved combined umbrella and walking stick.
RENDLE, WILLIAM EDGCUMBE	279	27th Jan. 1868	Improvements in structures for protecting fruit trees, vegetables and other plants from frost, cold winds or rain, also in heating such and other structures.
RENNES, ALEXANDRE JOSEPH [MARIE.]	490	13th Feb. 1868	New or improved processes and machinery or apparatus for brush making. (Patented by Frederick Tolhausen.)
RENSHAW, ARTHUR DALLISON	1299	21st April 1868	Improvements in apparatus for shearing or clipping the wool or hair of animals, and in the means for operating the same.
RENWICK, EDWIN SABINE -	3233	22nd Oct. 1868	Machinery for propelling water craft. (Patented by George Tomlinson Bougfield.)
RÉSENER, PAUL HENRI FERDI- [NAND.]	3387	7th Nov. 1868	Machinery or apparatus for cutting screw threads. (Patented by John Henry Johnson.)

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## ALPHABETICAL INDEX OF PATENTEES

[Ric]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RESTELL, THOMAS - - -	2038	24th June 1868	Certain improvements in military and sporting guns, as also in cartridges applicable to the same or other descriptions of breech-loading guns now in use, as well as in bayonets for military guns.
REVILL, JOSEPH - - -	1676	21st May 1868	Revolving or coiling shutters.
REYNOLDS, ANDREW JACKSON	172	18th Jan. 1868	Means and apparatus or machinery for propelling ships or vessels. (Patented by John Milward.)
REYNOLDS, ANDREW JACKSON	3348	4th Nov. 1868	Atmospheric water elevating engines. (Patented by Alfred Vincent Newton.)
REYNOLDS, GEORGE WAIDE -	1822	3rd June 1868	Bobbin holders to be used with sewing-machines.
REYNOLDS, OSBORNE - - -	1792	30th May 1868	Apparatus for steam ploughing or cultivating.
REYNOLDS, OSBORNE - - -	3738	8th Dec. 1868	Improved means of signalling or communicating between the passengers, guard and engine driver of railway trains in motion.
REYNOLDS, SAMUEL GODFREY	1737	26th May 1868	Ploughs and other implements for cultivating land. (Patented by William Robert Lake.)
REYNOLDSON, HERBERT PINK- [NEY.	716	3rd March 1868	Portfolios.
RHODES, JAMES - - -	1971	17th June 1868	Construction of safes, strong rooms and other like depositories intended to contain valuable property.
RHODES, WILLIAM - - -	1971	17th June 1868	Construction of safes, strong rooms and other like depositories intended to contain valuable property.
RHODES, WILLIAM HENRY -	3579	25th Nov. 1868	Machines for spinning and doubling.
RICE, COLONEL EDMUND -	3495	17th Nov. 1868	An improved bayonet which will also serve as a digging implement. (Patented by William Robert Lake.)
RICH, JOHN TATEM - - -	1444	2nd May 1868	An improved mode of and apparatus for generating gas and mixing the same with atmospheric air, for heating and illuminating purposes. (Patented by William Robert Lake.)
RICHARD, JOSEPH SIGISBERT	1702	23rd May 1868	Improved arrangements of apparatus for stopping the motions of spinning machinery and machinery for manufacturing textile fabrics, when a thread breaks or a bobbin is exhausted, or the tension of a thread is too great.
RICHARD, JULES - - -	2230	15th July 1868	Construction of instruments for facilitating vocal instruction at schools.
RICHARDS, JOHN - - -	3805	29th Oct. 1868	Shaft couplings. (Patented by Martin Benson.)
RICHARDS, THOMAS - - -	3222	21st Oct. 1868	Extractors for breech-loading pistols.
RICHARDS, WESTLEY - - -	1931	12th June 1868	Breech-loading fire-arms and projectiles.
RICHARDS, WESTLEY - - -	3068	7th Oct. 1868	Cartridges.
RICHARDSON, CHARLES - - -	366	3rd Feb. 1868	Looms for weaving.
RICHARDSON, CHARLES - - -	3499	17th Nov. 1868	Looms for weaving.
RICHARDSON, CHARLES ED- [WARD.	1405	29th April 1868	Preserving meat and other animal matters. (Patented by John Henry Johnson.)
RICHARDSON, EDWARD - - -	1224	13th April 1868	Stays or corsets.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[Rid]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RICHARDSON, EDWARD - -	2674	29th Aug. 1868	A new (or improved) material for manufacturing casings or coverings for bottles and other such like articles, applicable also for other purposes.
RICHARDSON, GEORGE - -	1995	20th June 1868	Certain improvements in looms for weaving.
RICHARDSON, JOHN - -	3187	19th Oct. 1868	Certain improvements in looms for weaving.
RICHARDSON, JOSEPH - -	2511	12th Aug. 1868	Manufacture of iron and steel.
RICHARDSON, WILLIAM - -	431	8th Feb. 1868	Improvements in machinery or apparatus for the manufacture of combs to be used in carding-engines as doffer or other such combs, or in wool burring, cotton cleaning or other machines used in the treatment of fibrous materials in which combs of the like character are required.
RICHARDSON, WILLIAM - -	937	19th March 1868	Machinery for the manufacture of bricks and tiles.
RICHARDSON, WILLIAM - -	1019	25th March 1868	Machines for burring or cleaning wool.
RICHARDSON, WILLIAM - -	2995	30th Sept. 1868	Machinery for burring or cleaning and preparing wool, cotton and other fibrous materials.
RICHARDSON, WILLIAM - -	3467	14th Nov. 1868	Condenser carding-engines.
RICHARDSON, WILLIAM HADEN	303	28th Jan. 1868	An improved process to be used in the manufacture of iron and steel, and improvements in the apparatus or means to be employed therefor.
RICHARDSON, WILLIAM HENRY	1044	26th March 1868	Bleaching esparto and other fibrous substances used in paper making.
RICHMOND, THOMAS - -	126	15th Jan. 1868	Looms for weaving.
RICHMOND, THOMAS - -	1021	25th March 1868	Looms for weaving.
RICHMOND, THOMAS - -	2678	29th Aug. 1868	Machinery or apparatus for grinding "cards" used in the preparation of cotton, wool and other fibrous substances.
RICHMOND, THOMAS - -	3076	8th Oct. 1868	Looms for weaving.
RICHNER, GUILLAUME AUGUSTE.	497	14th Feb. 1868	Moderator or carcel lamps. (Patented by Henri Adrien Bonneville.)
RICKARD, WILLIAM THOMPSON	3181	17th Oct. 1868	Apparatus for washing ores and other matters, and the separation of the metals contained therein or combined therewith.
RIDDELL, DAVID - - -	1634	19th May 1868	Improvements in the manufacture of bread, biscuits and other preparations from flour, also in the manufacture of flour to be used therefor.
RIDDLE, WILLIAM - - -	3417	10th Nov. 1868	Improvements in hooping bales or banding them with iron, and in apparatus connected therewith, part of which invention is applicable to other purposes.
RIDEHALGH, SPENCER - -	583	21st Feb. 1868	Certain improvements in machinery or apparatus employed for sizing yarn, termed "tape legs," being also applicable to other similar machinery.
RIDGWAY, ALFRED - - -	1975	18th June 1868	Certain improvements in agricultural machines termed hay-rakes.
RIDGWAY, WILLIAM HENRY -	3939	24th Dec. 1868	Improvements in the manufacture of ornamental bricks, tiles, slabs and other like articles, and in the machinery or apparatus employed therein.
RIDLEY, JOHN - - -	3719	7th Dec. 1868	Apparatus for obtaining motive-power.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RIDLEY, ROBERT - - -	1220	13th April 1868	Machinery or apparatus for getting and hewing coal, stone and other minerals.
RIED, LAURENCE - - -	3031	3rd Oct. 1868	An improved mode of reviving bone black after it has been exhausted by sugar refining or other manufacturing operations. (Patented by John Rogers.)
RILEY, CHARLES - - -	314	29th Jan. 1868	An improved combined threshing machine frame.
RILEY, ISAIAH - - -	921	18th March 1868	Improvements in cranes or other machinery for lifting, lowering and hauling by means of steam, gas, heated air or other fluid pressure, and in the boilers or furnaces for generating the power for the same, such improvements being applicable in part for other purposes.
RIMES, RICHARD HUCKNALL -	507	15th Feb. 1868	Boots and shoes.
RIPLEY, HENRY WILLIAM -	2238	16th July 1868	Machinery or apparatus for winding warps or threads of cotton, wool or other fibrous substances.
RIPPINGILLE, EDWARD ALEX- [ANDER.	1391	28th April 1868	Improvements in obtaining motive-power and in means or apparatus employed therein.
RIPPINGILLE, EDWARD ALEX- [ANDER.	3264	24th Oct. 1868	Improvements in means or apparatus employed when obtaining motive-power, parts of which improvements are also applicable to other purposes.
RITCHEL, CHARLES FRANCIS -	3142	14th Oct. 1868	An improved apparatus for drilling series of small holes and for other like operations. (Patented by William Robert Lake.)
RITCHIE, CHARLES - - -	265	25th Jan. 1868	Apparatus for utilizing heat for heating, warming and ventilating, whether such heat be procured by the agency of steam-boilers, furnaces or from other sources.
RITCHIE, CHARLES - - -	2335	25th July 1868	Portable head-dress and other coverings for protecting the head or body against sun, rain or weather.
RITCHIE, GEORGE - - -	2948	25th Sept. 1868	Improvements in sun-proof fabrics, and in constructing tents, sun-shades or weather protectors.
RITCHIE, GEORGE - - -	3833	16th Dec. 1868	Compositions suitable for being applied to woven fabrics and other surfaces.
RITCHIE, GEORGE - - -	3898	21st Dec. 1868	Constructing parasols and weather protectors or tents.
RITTENHOUSE, CHARLES ED- [WIN.	3017	1st Oct. 1868	An improved mode of constructing the door frames of furnaces for steam generators. (Patented by William Robert Lake.)
RIVES, MATHURIN - - -	1830	4th June 1868	An improved ships' block.
RIVIERE, HENRY - - -	1865	6th June 1868	Machines and hand tools used for closing the ends of central-fire and pin cartridges when loaded.
RIVIÈRE, LOUIS FOYAMOUR [PONIATOWSKY.	1093	31st March 1868	An improved velocipede.
RIVIERE, LOUIS FOY AMOUR [PONIATOWSKY.	2695	31st Aug. 1868	Cases for packing bottles containing wine or other liquid.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RIVOT, LOUIS EDOUARD -	2439	4th Aug. 1868	Treatment of auriferous, argentiferous and other ores. (Patented by William Spence.)
ROBBINS, LOUIS - - -	3244	23rd Oct. 1868	Preparing wool. (Patented by Maurice Sautter.)
ROBBINS, LOUIS - - -	3245	23rd Oct. 1868	Preparing fibre from bamboo or cane for the manufacture of textile fabrics. (Patented by Maurice Sautter.)
ROBERT-THEURER, FRITZ -	3338	17th Dec. 1868	Apparatus for winding and setting the hands of watches.
ROBERTS, GEORGE - - -	492	13th Feb. 1868	Candles.
ROBERTS, JOHN - - -	284	27th Jan. 1868	Joining metallic pipes.
ROBERTS, JOHN - - -	2256	17th July 1868	Construction of vessels or chambers for cooling and preserving edibles and liquids, and for other cooling purposes.
ROBERTS, JOHN - - -	2806	11th Sept. 1868	An improved portable stove.
ROBERTS, JOHN - - -	2807	11th Sept. 1868	Shoes for horses and other quadrupeds.
ROBERTS, MARK LAMAR -	2755	7th Sept. 1868	Improvements in knitting and in the machinery to be used in knitting. (Patented by Alfred Vincent Newton.)
ROBERTS, THOMAS HUMPHREY	2390	30th July 1868	Apparatus for retarding and stopping carriages.
ROBERTSHAW, PAUL - - -	1828	4th June 1868	Construction of steam-boilers and generating apparatus in connection therewith.
ROBERTSON, ARTHUR FLOYD -	2121	2nd July 1868	Carts. (Communicated by Burgess Long.)
ROBERTSON, JAMES - - -	3146	14th Oct. 1868	New or improved modes of obtaining and transmitting motive-power, and in the means, apparatus or mechanism employed therefor, part of such apparatus or mechanism being also applicable to the measuring of fluids.
ROBERTSON, JAMES DOUGLAS	1118	2nd April 1868	Machinery or apparatus for making mitre or other angular joints. (Patented by William Robertson.)
ROBERTSON, PATRICK - - -	2597	20th Aug. 1868	Breaks for railway purposes.
ROBERTSON, WILLIAM - - -	1118	2nd April 1868	Machinery or apparatus for making mitre or other angular joints. (Communicated by James Douglas Robertson.)
ROBEY, JAMES - - -	1599	15th May 1868	Furnaces for consuming smoke.
ROBINS, ALFRED - - -	3158	15th Oct. 1868	Manufacture of water and drain pipes. (Communicated by John Edward Hughes and Isaac Sherman Church.)
ROBINS, WILLIAM BURNET -	1196	9th April 1868	Garden engines and other similar hand pumps for throwing jets of water.
ROBINSON, ARTHUR HENRY -	3366	6th Nov. 1868	Cocks or taps.
ROBINSON, GEORGE DANNETT	3862	18th Dec. 1868	Carriages.
ROBINSON, HENRY - - -	3688	4th Dec. 1868	Improvements in dressing millstones and in apparatus therefor.
ROBINSON, HENRY - - -	3935	24th Dec. 1868	Apparatus for dressing millstones.
ROBINSON, HENRY GEORGE -	2255	17th July 1868	Liquid meters. (Patented by Alexander Browne.)
ROBINSON, HENRY OLIVER -	1255	17th April 1868	An improved screw propeller.
ROBINSON, HENRY OLIVER -	2382	29th July 1868	A new or improved dredger.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ROBINSON, HENRY OLIVER -	2429	1st Aug. 1868	Dredging machines.
ROBINSON, JAMES - - -	2973	28th Sept. 1868	Ploughs.
ROBINSON, JOHN - - -	679	28th Feb. 1868	Improvements in the method of cleaning and preventing deposits accumulating upon the surfaces of feed-water heating apparatus employed in boilers for generating steam, and in the apparatus connected therewith.
ROBINSON, JOHN - - -	1251	16th April 1868	Manufacture of paint.
ROBINSON, MATTHEW - -	194	20th Jan. 1868	Manufacture of expanding and contracting combs or reeds.
ROBINSON, ROBERT - -	2499	11th Aug. 1868	Improved apparatus for regulating, controlling and for varying the speed of shafts and machinery.
ROBINSON, ROBERT - -	2551	15th Aug. 1868	Improvements in or applicable to lathes, and in mechanism for varying rotating speeds, applicable to other tools, machines and shafting.
ROBINSON, THOMAS - -	266	25th Jan. 1868	Formation or construction of fortifications.
ROBINSON, THOMAS - -	3356	5th Nov. 1868	Manufacture of iron and steel.
ROBLIN, ERNEST GABRIEL -	1894	10th June 1868	Breech-loading fire-arms. (Patented by Clinton Edgcumbe Brooman.)
ROBOTHAM, SAMUEL - -	1394	29th April 1868	Bird-cages.
ROCHAZ, CHARLES - -	264	25th Jan. 1868	Improvements in breech-loading fire-arms and in the manufacture of ammunition for the same. (Patented by Clinton Edgcumbe Brooman.)
ROCKLEY, CHARLES RUSSELL	752	4th March 1868	Pipes for smoking tobacco.
RODEN, RICHARD BROWN -	3734	8th Dec. 1868	Construction of breech-loading fire-arms.
RODGER, ALEXANDER WYLLIE	2812	12th Sept. 1868	Caps or bonnets.
RODGERS, JOSEPH - - -	1906	11th June 1868	Improved constructions of belts, straps or bands for driving machinery.
ROE, FREEMAN - - -	1813	2nd June 1868	An improvement in smoking pipes, which invention is also applicable to cigar holders.
ROECKNER, CARL HEINRICH -	331	30th Jan. 1868	Machinery for the manufacture of paper.
ROECKNER, CARL HEINRICH -	2388	30th July 1868	Machinery for the manufacture of paper.
ROGERS, DAVID CHILDS - -	3950	28th Dec. 1868	An improved machine for pegging boots and shoes. (Patented by William Robert Lake.)
ROGERS, EDMUND PENDLETON	3155	15th Oct. 1868	A new and useful improvement in elastic moulds. (Patented by Henri Adrien Bonneville.)
ROGERS, JOHN - - -	3031	3rd Oct. 1868	An improved mode of reviving bone black after it has been exhausted by sugar refining or other manufacturing operations. (Partly communicated by Laurence Ried.)
ROGERS, JOSEPH - - -	1336	23rd April 1868	Preparation and utilization of certain vegetable and bituminous products.
ROLFE, NICHOLAS HALL -	168	17th Jan. 1868	Machinery for cutting laths.
ROLLASON, ALEXANDER - -	2598	20th Aug. 1868	Purifying coal gas and obtaining ammonia from coal gas products.
ROLLET, ISIDORE - - -	3782	12th Dec. 1868	Apparatus for indicating hours and days or for giving other notifications, specially applicable to post office letter boxes. (Patented by Clinton Edgcumbe Brooman.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ROLLINS, JOHN GUSTAVUS -	151	16th Jan. 1868	Baskets for containing fruit and other goods. (Communicated by <i>Welcome Hitchcock</i> .)
ROLLINS, JOHN GUSTAVUS -	3692	4th Dec. 1868	Nozzles for oil cans and other vessels. (Communicated by <i>Henry Page</i> .)
ROLLO, WILLIAM - - -	706	2nd March 1868	Arrangement and construction of water-closets.
ROMAN, LOUIS - - -	705	2nd March 1868	Apparatus for obtaining motive-power from rivers or streams of water, and for facilitating boats ascending and descending rivers or streams.
ROMAN, LOUIS - - -	3599	26th Nov. 1868	An hydraulic motive-power.
RÖMCKE, CHARLES HERMANN	287	28th Jan. 1868	A new mode of preserving eggs and improved apparatus connected therewith. (Patented by <i>Henri Adrien Bonneville</i> .)
RONDEL, PIERRE - - -	1258	17th April 1868	A new chemical product applicable to the electrical pile and to other uses. (Patented by <i>William Edward Gedge</i> .)
ROOKER, ALFRED - - -	2841	15th Sept. 1868	An improvement in curtain rings.
ROPER, ALFRED - - -	400	6th Feb. 1868	An improved screw propeller. (Patented by <i>George Roper</i> .)
ROPER, GEORGE - - -	400	6th Feb. 1868	An improved screw propeller. (Communicated by <i>Alfred Roper</i> .)
ROSE, EDOUARD FOURMAUX -	3028	3rd Oct. 1868	Machinery for breaking and peeling flax, hemp and other filamentous plants.
ROSE, LAUCHLAN - - -	2278	20th July 1868	An improved aerated liquid or artificial champagne.
ROSE, THOMAS - - -	3405	10th Nov. 1868	Improvements in utilising a certain waste material obtained in treating cotton seed, and in machinery employed therein.
ROSE, WILLIAM - - -	2083	29th June 1868	A new toy in the shape of a mortar or spring gun. (Patented by <i>Henry Jewitt</i> .)
ROSE, WILLIAM W. - - -	2833	15th Sept. 1868	A new toy representing game-cocks or other birds or animals in the act of fighting. (Patented by <i>Henry Jewitt</i> .)
ROSE, WILLIAM W. - - -	2990	30th Sept. 1868	Means and apparatus for playing a new game. (Patented by <i>Henry Jewitt</i> .)
ROSE, WILLIAM W. - - -	3355	5th Nov. 1868	Slabs or blocks for erecting toy houses and other buildings. (Patented by <i>Henry Jewitt</i> .)
ROSS, HENDERSON - - -	215	21st Jan. 1868	Furnaces. (Patented by <i>John Henry Johnson</i> .)
ROSS, ROBERT CRAIB - - -	476	12th Feb. 1868	Certain improvements in mechanism or apparatus to be employed for cutting paper, pasteboard, textile fabrics and similar substances or materials.
ROSS, ROBERT CRAIB - - -	2718	3rd Sept. 1868	Stop blocks for railways.
ROSSETTER, WILLIAM - - -	3061	7th Oct. 1868	Warping or beaming machines.
ROSTAING, CHARLES SYL- [VESTER.]	3661	2nd Dec. 1868	Electric telegraph cables.
ROSTAING, CLÉMENT - - -	1980	12th June 1868	An improved material suitable for making steam, water and gas tight joints, and for similar uses.
ROSTRON, EDWARD - - -	1326	23rd April 1868	Machinery employed in the manufacture of felt.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ROTHBERGER, JACOB - -	2880	15th Sept. 1868	Means and apparatus for securing buttons to articles of dress. (Patented by Charles Denton Abel.)
ROTHERY, JOSEPH - -	1219	13th April 1868	Improvements in machinery or apparatus for getting and hewing coal, stone and other minerals, parts of which improvements are applicable to motive-power engines.
ROTHERY, JOSEPH - -	1220	13th April 1868	Machinery or apparatus for getting and hewing coal, stone and other minerals.
ROTHWELL, PETER - -	427	8th Feb. 1868	An improved regulating valve for the delivery of specific quantities of gas, water or other fluids.
ROTT, AUGUSTE SCHEURER -	2085	29th June 1868	Apparatus for bleaching or lixiviating fabrics and skeins. (Patented by Clinton Edgcumbe Broome.)
ROTT, SCHEURER, fils - -	2085	29th June 1868	Apparatus for bleaching or lixiviating fabrics and skeins. (Patented by Clinton Edgcumbe Broome.)
ROUGET, ETIENNE - -	2171	9th July 1868	An improved mode of fixing on paper or other suitable surfaces, drawings in crayon, charcoal, black lead, or other materials of a more or less friable nature.
ROUSSEAU, EMILE - -	1972	17th June 1868	Purification of ceramic, vitrifiable and other matters, as also of the crucibles, furnaces or vessels used for containing the same. (Patented by Alexander Melville Clark.)
ROUSSEAU, HENRI - -	3280	26th Oct. 1868	Means of and machinery for scouring wool. (Patented by Alexander Melville Clark.)
ROUSSEL, CHARLES - -	2124	3rd July 1868	Machinery or apparatus for spinning, doubling and twisting fibrous substances.
ROUSSELOT, JOSEPH - -	3273	26th Oct. 1868	An improved gas-burner. (Patented by William Edward Gedge.)
ROUTLEDGE, THOMAS - -	1044	26th March 1868	Bleaching esparto and other fibrous substances used in paper making.
ROUX, HILARION - -	2340	25th July 1868	A new or improved process for separating the zinc from the argentiferous alloys obtained in the separation of silver from argentiferous lead by means of zinc, and improvements in the furnaces employed for that purpose. (Patented by Charles Denton Abel.)
ROUX, LOUIS AUGUSTE - -	513	15th Feb. 1868	An improved material applicable for the manufacture of felted and other fabrics. (Patented by Alexander Melville Clark.)
ROW, THOMAS - -	1135	3rd April 1868	Manufacture of paper hangings.
ROWAN, JOHN MARTIN - -	96	10th Jan. 1868	Manufacture of artificial fuel. (Communicated by Josef Ritter Von Stummer-Traunfels.)
ROWAN, THOMAS - -	327	30th Jan. 1868	Removing impurities, such as sulphur and phosphorus, from iron and other ores and from coal.
ROWAN, WILLIAM - -	1957	16th June 1868	Machinery for hackling flax, hemp and other fibrous materials.
ROWAND, MICHAEL - -	861	13th March 1868	Treatment or preparation of the ingredients employed in the manufacture of fermented liquors.
ROWBOTHAM, RICHARD - -	3139	14th Oct. 1868	An improved top bar for fire-places.
ROWE, CHARLES - -	772	6th March 1868	Apparatus for combing or cleaning animals.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ROWLAND, ELLIS - - -	934	19th March 1868	Certain improvements in the method and arrangement of apparatus for closing dampers, which apparatus may also be employed for measuring liquids.
ROWLEY, JOHN - - -	273	27th Jan. 1868	An improved process for the ornamenting of candles.
ROWLEY, THOMAS - - -	236	23rd Jan. 1868	Improvements applicable to the soles and heels of boots, shoes, clogs and other coverings for the feet.
ROY, FERDINAND LE - - -	619	25th Feb. 1868	An improved non-conducting composition for preventing the radiation or transmission of heat or cold, and an improved method of applying the same.
ROY, FERDINAND LE - - -	2492	10th Aug. 1868	An improved non-conducting composition for preventing the radiation or transmission of heat or cold, and an improved method of applying the same.
ROY, MARY ELIZA - - -	26	3rd Jan. 1868	An improved receptacle for containing needles, thread and other articles.
ROYLE, WILLIAM THOMAS -	2401	31st July 1868	Machinery or apparatus for folding or pleating paper for pattern cards, applicable also to folding or pleating woven fabrics.
RUE, MARCEL - - - -	2562	17th Aug. 1868	Improvements in the mode of decomposing the sulphurets of iron contained in ores, coal, coke and other mineral products, and in apparatus therefor. (Patented by Charles Denton Abel.)
RUE, WILLIAM FREDERICK [DE LA.	1057	27th March 1868	Whist counters.
RUIZ, LOUIS MARIA - - -	1280	20th April 1868	Apparatus for signalling or giving orders on board ships and in other places. (Communicated by Alfred Foucault.)
RULE, WILLIAM, the younger -	1805	16th May 1868	An improved machine or apparatus for dressing metallic ores.
RULE, WILLIAM GEORGE - -	367	3rd Feb. 1868	Leggings or gaiters and other like articles. (Patented by William Robert Lake.)
RUSETT, EDWIN WILLIAM DE	254	24th Jan. 1868	Waterclosets.
RUSETT, EDWIN WILLIAM DE	1699	23rd May 1868	Engines worked by steam or other motive fluid, specially applicable to steam pumps.
RUSSELL, DANIEL - - -	2241	16th July 1868	Masting of ships and vessels.
RUSSELL, WILLIAM - - -	2193	11th July 1868	An improvement in machinery for making paper bags and envelopes.
RYDER, JAMES - - - -	778	6th March 1868	Improvements in preparing hard foreign wheat for manufacturing into flour, and in apparatus to be employed for such purpose.
RYDER, JOHN - - - -	3231	22nd Oct. 1868	Certain improvements in kilns for burning bricks, lime or other similar materials.
RYE, WILLIAM - - - -	1826	4th June 1868	Apparatus for supplying fuel to steam-boiler and other furnaces.
RYLAND, FREDERICK - - -	845	12th March 1868	Manufacture of pulleys for suspending window frames and for other like purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RYLAND, FREDERICK - -	3881	16th Dec. 1868	Improvements in the manufacture of metallic lids for saucepans and other articles of hollow ware, and in machinery or apparatus to be employed in the said manufacture.
RYLAND, WILLIAM HAWKES -	597	22nd Feb. 1868	Fastenings for articles of dress and jewelry.
RYLAND, WILLIAM HAWKES -	1350	24th April 1868	Fastenings for articles of dress and jewelry.
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SABROUT, FRANCOIS LOUIS -	1591	15th May 1868	Improvements in the manufacture of hollow bricks or blocks to be used for the floors, ceilings and other parts of buildings, and in apparatus for moulding or manufacturing the same. (Patented by John Henry Johnson.)
SAGAR, THOMAS - - -	126	15th Jan. 1868	Looms for weaving.
SAGAR, THOMAS - - -	1021	25th March 1868	Looms for weaving.
SAGAR, THOMAS - - -	3076	8th Oct. 1868	Looms for weaving.
SAINTÉ MARIE, GEORGES DE -	1574	14th May 1868	An improved mode of coloring or ornamenting capsules, tubes and metallic foil.
SALAMON, JAMES - - -	2677	29th Aug. 1868	An improved machine for agglomerating coal or other combustible dust in any shapes, particularly into spheroidal and ellipsoidal forms, and permitting the simultaneous manufacture of balls or cakes of various sizes. (Patented by William Edward Gedge.)
SALAMON, NAHUM - - -	1836	4th June 1868	An improved mode of mounting photographic and other pictures, patterns and advertisements. (Communicated by Frederick Morris Beral Bertram.)
SALAMON, NAHUM - - -	2473	7th Aug. 1868	Sewing-machines. (Communicated by Benjamin Porte Howe.)
SALLITT, WILLIAM JOSEPH -	2622	22nd Aug. 1868	An improved gravitating wheel, machine or engine.
SALMON, JAMES - - -	2508	11th Aug. 1868	Printing machinery.
SALOM, SALOM HENRY - -	886	13th March 1868	An improved apparatus or instrument for clipping or shearing the hair of horses and other animals.
SALTER, THOMAS BACHE -	3857	18th Dec. 1868	Pressure or steam gauges.
SAMPSON, HENRY - - -	1378	27th April 1868	Improvements in "papering" and "pressing" in the "finishing" of woven fabrics, and in the means or apparatus employed therein.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SAMPSON, JOHN - - -	3648	17th Dec. 1868	Construction of pistons.
SAMPSON, THOMAS - - -	3674	2nd Dec. 1868	Improvements in or additions to chairs. (Patented by Edmund William Pyle Taunton.)
SAMSON, EDWARD - - -	1323	22nd April 1868	Utilising the hoop rim or frame under the top of an ordinary loo centre or other table, whether circular, oval or any other shape.
SAMSON, GEORGE ROBERT -	2850	16th Sept. 1868	Construction of pianofortes.
SAMUEL, JAMES - - -	3370	6th Nov. 1868	Construction of locomotive steam carriages to be used on railways.
SAMUEL, PIERRE AUGUSTIN -	333	30th Jan. 1868	Adjustable wrenches. (Patented by Alexander Melville Clark.)
SAMUËL, PIERRE AUGUSTIN -	770	5th March 1868	Steam pumps. (Patented by Alexander Melville Clark.)
SAMUELL, EDWARD SIMPSON -	3624	28th Nov. 1868	An improved manufacture of superphosphate of lime.
SAMUELS, SAMUEL RODGERS -	2656	26th Aug. 1868	Improvements in the manufacture of woven fabrics and in apparatus employed therein.
SAMUELSON, BERNHARD -	3983	31st Dec. 1868	Improvements in the manufacture of iron and steel and in the apparatus connected therewith.
SAMUELSON, MARTIN - - -	2423	1st Aug. 1868	Hydraulic press boxes.
SAMUELSON, MARTIN - - -	3346	4th Nov. 1868	Improvements in the manufacture of corrugated plates to be used as envelopes in lieu of hair cloths, in the pressing of fatty and oleaginous substances, and especially in the manufacture of oil cake, and new (or improved) apparatus to be used in such manufacture.
SANBORN, RUFUS SLOCUM -	306	29th Jan. 1868	An improved fireproof powder magazine. (Patented by William Snell.)
SANDERS, GEORGE - - -	2897	19th Sept. 1868	Safety valves. (Communicated by Richard David Sanders.)
SANDERS, GEORGE NICHOLAS	292	23th Jan. 1868	Improved apparatus for regulating and increasing artificial light produced by the combustion of gas, oil, petroleum and other volatile oils.
SANDERS, GEORGE NICHOLAS	3132	13th Oct. 1868	Improvements in and connected with lamps.
SANDERS, HENRY JOHN - -	3294	23th Oct. 1868	Improved means or apparatus for regulating the flow or discharge of liquids from two or more vessels simultaneously.
SANDERS, JOHN CROSS - -	241	23rd Jan. 1868	Door, shutter and bell knobs and furniture.
SANDERS, RICHARD DAVID -	2897	19th Sept. 1868	Safety valves. (Patented by George Sanders.)
SANDERSON, CHARLES - - -	686	28th Feb. 1868	Manufacture of iron and steel.
SANGSTER, FRANCIS - - -	598	22nd Feb. 1868	Parasols and umbrellas.
SANTENARD, FRANÇOIS NICO- [LAS.	802	7th March 1868	An improved apparatus for raising and forcing liquids, more especially designed for supplying water to steam-boilers. (Patented by Edward Casper.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SANTENARD, FRANÇOIS NICO- [LAS.	918	18th March 1868	An improved mode of and apparatus for effecting the continuous return, into a steam-boiler, of the water evaporated and taken from the same. (Patented by William Robert Lake.)
SARGENT, CHARLES GRANDI- [SON.	947	20th March 1868	Machinery and apparatus for opening and cleaning wool and other fibrous substances. (Patented by Colin Mather.)
SARGENT, CHARLES GRANDI- [SON.	3803	15th Dec. 1868	Machinery for ginning, burring and cleaning cotton and other fibrous substances. (Patented by Colin Mather.)
SARGENT, FRANK WILLIAMS -	3083	8th Oct. 1868	Paper boats. (Patented by George Davies.)
SARJEANT, ENOCH - - -	2832	15th Sept. 1868	Manufacture of gaseliers, gas pendants, gas brackets, gas standards and other gas fittings.
SARNEY, THOMAS SEXTON -	418	7th Feb. 1868	Improved steel spring railway fastenings. (Patented by Alfred Buckingham Ibbotson.)
SAUL, SARAH ELIZABETH -	1809	16th May 1868	Apparatus employed for cooking, boiling, melting and evaporating purposes. (Patented by Robert Rayner.)
SAUNBY, THOMAS - - -	3900	21st Dec. 1868	Currying and dressing leather. (Patented by Henry Thornton Vanner and Edward Prest.)
SAUNDERS, ROBERT - - -	2532	13th Aug. 1868	Improvements in anchors and appliances to the same, also applicable to other tackling liable to sudden strains.
SAUNDERS, ROBERT - - -	2671	28th Aug. 1868	An oscillating screen breakwater.
SAUTTER, MAURICE - - -	3244	23rd Oct. 1868	Preparing wool. (Communicated by Louis Robbins.)
SAUTTER, MAURICE - - -	3245	23rd Oct. 1868	Preparing fibre from bamboo or cane for the manufacture of textile fabrics. (Communicated by Louis Robbins and John Southmayd.)
SAUTTER, MAURICE - - -	3352	4th Nov. 1868	Preparing and preserving vegetable and animal substances. (Communicated by William Ogden Giles.)
SAUVAGE, CLEMENT - - -	2869	17th Sept. 1868	Improvements in the combustion of liquid fuel and in the furnaces and apparatus employed therein. (Patented by John Henry Johnson.)
SAWARD, JOSIAH - - -	3632	28th Nov. 1868	Means of preserving natural flowers and leaves of trees and plants, for ornamental and useful purposes.
SAWERS, ROBERT BROWN -	1846	5th June 1868	Weaving ornamental fabrics.
SAWYER, JOSEPH - - -	2594	20th Aug. 1868	Construction and method of hanging, suspending and balancing window-sashes.
SAXBY, JOHN - - - -	1112	2nd April 1868	Apparatus for actuating, locking and regulating railway switches, points and signals.
SCAIFE, ROBERT - - - -	103	11th Jan. 1868	Certain improvements in machinery or apparatus to be employed in spinning, twisting or doubling cotton, silk or other fibrous substances.
SCALLY, JOHN DILLON, - -	3008	1st Oct. 1868	Apparatus for filling casks.
SCATCHARD, ALFRED - - -	1099	1st April 1868	Apparatus used in the manufacture of aerated bread.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SCHAEFFER, BERNARD AUGUST	1621	18th May 1868	Improvements in apparatus for conveying and regulating the pressure of steam passing through pipes or other vessels, and taking off condensed water from the same. (Patented by Edward Billington and William Jolley.)
SCHÄFER, FREDERICK - -	464	11th Feb. 1868	A new or improved apparatus for testing eggs.
SCHÄFER, FREDERICK - -	1812	2nd June 1868	A new or improved apparatus for removing wax and dirt from the tops of corks in bottles, and the combination of such apparatus with an appliance for drawing the corks.
SCHÄFER, FREDERICK - -	1832	4th June 1868	A new or improved appliance for holding a stick of sealing wax.
SCHAFFHAUSER, MATHIAS -	3968	30th Dec. 1868	Improvements in the manufacture of paper tubes employed in the spinning of wool and other fibrous substances, and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
SCHAUWECKER, FREDERICH -	597	21st Feb. 1868	Apparatus for lubricating the sliding valves and pistons of steam-engines. (Patented by William Wilson.)
SCHIEDT, ERNST - - -	3433	12th Nov. 1868	Improvements in breech-loading fire-arms, and in cartridges to be used therewith and with other descriptions of breech-loading fire-arms. (Patented by Henry Henkel.)
SCHEPDAEL, EDMOND VAN, [the younger.	1320	22nd April 1868	Construction of "concaves" or breasting for the beating drums of thrashing machines. (Patented by Hunter Henry Murdoch.)
SCHILT, EUSÈBE - - -	3281	27th Oct. 1868	Manufacture and application of salt-stones or lumps of salt for consumption by cattle, sheep and other animals. (Patented by William Edward Gedge.)
SCHIMMEL, OSCAR - - -	602	22nd Feb. 1868	Improvements in cleaning or washing clothes and in the machines used therefor. (Patented by William Krutzsch.)
SCHINZ, CHARLES - - -	753	4th March 1868	A process for the partial elimination of the nitrogen from the products of combustion, and furnaces and apparatus connected therewith.
SCHLOSSER, PHILIBERT AN- [TOINE HIPPOLYTE.	501	14th Feb. 1868	A process having for object the separation of animal from vegetable substances in textile fabrics, rags or any other material containing them. (Patented by William Edward Gedge.)
SCHLOTTER, HERMANN -	452	10th Feb. 1868	An improved method of and apparatus for raising water.
SCHMIDSFELDEN, MAXIMILIAN [SCHMID VON.	1463	5th May 1868	Axle-boxes for the rolling stock of railways. (Patented by Charles Denton Abel.)
SCHMIDT, ALBERT - - -	3597	25th Nov. 1868	An improvement in the means of fastening scarfs, neckties and cravats. (Patented by David Vogl.)
SCHMIDT, ALBERT EDWIN -	2143	6th July 1868	Sewing-machines. (Patented by Peter Jensen.)
SCHMOLLE, LÉONCE BERNARD	702	29th Feb. 1868	Skeleton skirts.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SCHNEIDER, PAUL FRIEDRICH	1339	23rd April 1868	Cartridge boxes or holders. (Patented by William Robert Lake.)
SCHNEIDER, RUDOLPH - -	145	16th Jan. 1868	Certain improvements in the manufacture of piled fabrics.
SCHÖENBERG, CHARLES GABRIEL NICOLAS, senior.	3389	7th Nov. 1868	Machinery for planing, mortising and otherwise preparing wood, metals and other materials. (Patented by Alexander Melville Clark.)
SCHOFIELD, CHARLES - -	2327	24th July 1868	Teeth for machines for picking or separating cotton, wool and other fibres. (Patented by William Robert Lake.)
SCHOLEFIELD, CHARLES -	748	4th March 1868	An improved method of hanging or suspending window sashes.
SCHOLEFIELD, RICHARD -	1268	18th April 1868	Brick-making machinery.
SCHOLEFIELD, RICHARD -	2636	25th Aug. 1868	Brick-making machinery.
SCHOLES, JOHN - - -	3538	21st Nov. 1868	Improved means of preparing wool or other fibre for feeding same to carding-engines and condensers.
SCHOLL, JOHN - - -	1751	27th May 1868	Improvements in gas-burners and in apparatus to be used in connection therewith.
SCHOMBURG, RUDOLPH - -	2443	4th Aug. 1868	Apparatus for the manufacture of bricks and other articles moulded or formed from clays and other plastic material.
SCHRÖDER, EDUARD - -	2752	7th Sept. 1868	An improved meter for water or other incompressible fluid. (Patented by George Davies.)
SCHRODER, NICOLAUS - -	515	15th Feb. 1868	Compositions for the manufacture of building blocks and for use in building. (Patented by Louis Mummenhoff.)
SCHUBEUS, AUGUSTE - -	3638	30th Nov. 1868	An improved fastening or lock for bags and other similar articles. (Patented by Louis Pfeiffer.)
SCHUCH, LEO - - - -	3202	20th Oct. 1868	Certain improvements in the method of purifying and decolorizing paraffine. (Patented by Charles Lauenstein.)
SCHUCHT, JOHN HENRY - -	2836	15th Sept. 1868	Construction of pianofortes, violins, guitars, organs and other similar musical instruments.
SCHULTZE, JOHANN FRIEDRICH [EDUARD.	2542	14th Aug. 1868	Manufacture of explosive compounds. (Patented by William Shoen.)
SCHUMAN, SIGISMUND - -	3341	3rd Nov. 1868	Improvements in treating and utilizing faecal matters and in the apparatus employed therefor.
SCHWARTZ, CARL EDWARD -	1945	13th June 1868	An improved mode of and means for obtaining crystal brocatel colors.
SCOFFERN, JOHN - - -	1380	27th April 1868	Sheathing ships' bottoms and other surfaces exposed to the action of sea water.
SCOFFERN, JOHN - - -	1717	25th May 1868	Treating paper and woven fabrics to produce therefrom waterproof sheets and slabs.
SCOTT, ADAM - - - -	1048	27th March 1868	The production of an alcoholic, fermented, dry, sweet or effervescent drink, of which tea or coffee or theine or caffeine is an essential ingredient.
SCOTT, ADAM - - - -	1477	6th May 1868	Improvements in the present method of means of attaching clothes to the person.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[See]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SCOTT, BERTIE CHARLES -	2914	2nd Sept. 1868	Construction of measures used by publicans, chemists and others, for measuring liquids.
SCOTT, EDWARD - - -	71	8th Jan. 1868	Forcing and raising water for feeding boilers and for other similar purposes.
SCOTT, EDWARD JOHN - -	2113	2nd July 1868	Ornamenting boots and shoes.
SCOTT, GEORGE LAMB - -	343	31st Jan. 1868	Apparatus for steering ships.
SCOTT, HENRY YOUNG DARRA- [COTT.]	1439	2nd May 1868	Kilns for burning lime and cement.
SCOTT, HENRY YOUNG DARRA- [COTT.]	2554	15th Aug. 1868	Pottery and other kilns.
SCOTT, JOHN - - - -	2428	1st Aug. 1868	Preparation of food for horses, cattle and other animals.
SCOTT, ROBERT - - -	1404	29th April 1868	Apparatus for dressing millstones.
SCOTT, SAMUEL - - -	1135	3rd April 1868	Manufacture of paper hangings.
SCOTT, THOMAS - - -	379	4th Feb. 1868	Kilns or apparatus for drying grain or other granular matters.
SCOTT, THOMAS - - -	382	4th Feb. 1868	Lamps for burning paraffin and other hydrocarbon oils.
SCOTT, THOMAS - - -	2004	20th June 1868	Machinery for cutting or worming screws.
SCOTT, WILLIAM - - -	3311	29th Oct. 1868	Machinery or apparatus for drying and cleansing wool or other fibrous substances.
SCOWEN, THOMAS LAYZELL -	1312	22nd April 1868	A new hook-button for boots, shoes and other articles of clothing.
SCOWEN, THOMAS LAYZELL -	1313	22nd April 1868	An improved method of fastening the button boot without the use of button holes.
SCRIVEN, CHARLES - -	2946	25th Sept. 1868	Planing, boring and slotting machinery.
SCRIVEN, JOHN ENRAGHT -	3318	15th Dec. 1868	Improvements in apparatus for heating the air in chambers, apartments or buildings, and for heating water, which apparatus is applicable for Turkish baths and other purposes.
SCRIVENER, RICHARD - -	207	21st Jan. 1868	Certain improvements in the method of retaining and securing corks or stoppers in bottles or vessels containing aerated liquids, and in apparatus connected therewith. (Patented by John Lacey Davies.)
SEAMER, GEORGE - - -	463	11th Feb. 1868	Manufacture of silk fancy weavings.
SEARS, HENRY BEAUFORT -	2605	21st Aug. 1868	Machinery or apparatus employed in manufacturing wheat and other grain into flour. (Patented by John Henry Johnson.)
SECK, WILLIAM - - -	1515	8th May 1868	Machinery or apparatus for hulling and winnowing grain.
SECK, WILLIAM - - -	1701	23rd May 1868	Kilns or apparatus applicable to the drying or treating of grain for the manufacture of malt.
SECOMBE, WILLIAM WIRT -	1598	14th May 1868	An improved apparatus for marking or directing boxes and parcels, and for other like purposes. (Patented by William Robert Lake.)
SEEBOHM-ULTZEN, FREDERIC	2820	14th Sept. 1868	Improved apparatus for generating carbonic acid, applicable to beer casks and other vessels, for preserving, raising and transferring their contents. (Communicated by Haas-Demrath.)



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SEELIG, JOHN - - -	3090	31st Dec. 1868	Manufacture and ventilation of hata.
SEELY, CHARLES AUGUSTUS -	1602	15th May 1868	An improved mode of embalming or preserving dead bodies. (Patented by William Robert Lake.)
SEELY, CHARLES AUGUSTUS -	1800	1st June 1868	A new and improved mode of impregnating wood with oleaginous and saline matters. (Patented by Charles Henry Wells.)
SEFI, MICHAEL - - -	1560	13th May 1868	Method of or means for preventing the corrosion or incrustation of marine and other boilers.
SEITZ, CARL DIETRICH JULIUS	2517	12th Aug. 1868	Improvements in the construction of furnaces for the recovery of the soda from the waste lyes resulting from the boiling of esparto grass or straw, in the working and incinerating of the residue resulting from evaporation, and in an improved means of depriving it of any offensive odour.
SELDEN, WILLIAM C. - -	1120	2nd April 1868	A new and useful improved steam and water packing, for use in packing stuffing-boxes of steam-engines, making joints and other like purposes. (Patented by William Edwin Boardman.)
SENIOR, BEN - - -	448	10th Feb. 1868	Machinery for preparing wool and other fibrous substances for spinning, commonly known as the "condenser carder."
SERGEANT, HENRY CLARK -	2863	17th Sept. 1868	Apparatus for raising water and other fluids. (Patented by William Edward Newton.)
SERRE, ACHILLE - - -	1218	13th April 1868	Bleaching, reviving and tinting white and colored feathers, and silk fabrics and goods. (Patented by Benjamin Joseph Barnard Mills.)
SERVEAU, AUGUSTE - -	2568	17th Aug. 1868	Sewing-machines. (Patented by George Francis Bradbury and Thomas Chadwick.)
SETCHELL, OLIVER CROMWELL	2629	24th Aug. 1868	An improved composition applicable to the manufacture of bricks, artificial stone, and various articles capable of being moulded or pressed into form.
SEVERN, GEORGE - - -	250	23rd Jan. 1868	Improvements in valvular apparatus for giving vent to and for excluding air from casks or other vessels, and in bungs for closing the same, partly applicable as valves for other purposes.
SEVILLE, SAMUEL - - -	483	13th Feb. 1868	Certain improvements in machinery or apparatus to be-employed for sizing and balling yarns and threads.
SEYDEL, GEORGE THEODORE -	1527	9th May 1868	Improvements in apparatus for heating and ventilating buildings, part of which improvements are also applicable to steam-boilers or steam generators.
SEYMOUR, CHARLES - -	3609	26th Nov. 1868	Paddle-wheels for steam-ships. (Patented by William Robert Lake.)
SEZILLE, ALEXANDRE - -	3912	22nd Dec. 1868	Treating corn for panification.
SHACKLETON, JOSEPH - -	3766	11th Dec. 1868	Spinning and twisting frames.
SHACKLETON, THOMAS - -	2238	16th July 1868	Machinery or apparatus for winding warps or threads of cotton, wool or other fibrous substances.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SHAEN, WILLIAM - - -	2542	14th Aug. 1868	Manufacture of explosive compounds. (Communicated by Johann Friedrich Eduard Schultze.)
SHALES, CHARLOTTE - -	3991	31st Dec. 1868	Improvements in tatting shuttles and in the mode of winding thread thereon.
SHAND, JAMES - - -	2781	10th Sept. 1868	Steam-boilers.
SHANKS, JOHN - - -	3140	14th Oct. 1868	Improvements in water-closets and in taps for the same and applicable otherwise.
SHARPE, BENJAMIN - -	2407	31st July 1868	Improvements in the construction of ships or vessels and batteries, and in the appliances and means for firing and working great guns.
SHARPE, GEORGE BREKTON -	2355	16th Sept. 1868	Construction of fire grates.
SHARROCK, SAMUEL - -	711	2nd March 1868	Construction of piles.
SHARROCK, SAMUEL - -	2735	4th Sept. 1868	Metallic standards or posts for electric telegraphs and signal masts.
SHARROCK, SAMUEL - -	3321	30th Oct. 1868	Lamp-posts.
SHAW, CHRISTOPHER - -	3218	21st Oct. 1868	Improvements in propelling vessels and in screw mechanism to be used therefor.
SHAW, HENRY FRANKLIN -	944	19th March 1868	Machines for overcoming resistance.
SHAW, JOHN - - -	2587	19th Aug. 1868	Force pumps employed in connection with hydraulic presses for packing or pressing, or the like uses.
SHAW, MATTHEW TURNER -	840	11th March 1868	Improvements in rolling iron and steel, and in wrought girders and joists, and in machinery for producing the same.
SHAW, MATTHEW TURNER -	2318	23rd July 1868	Hydraulic apparatus for lifting, hauling and lowering.
SHAW, RICHARD - - -	2082	29th June 1868	Looms for weaving.
SHAW, THOMAS RAMSDEN -	2592	20th Aug. 1868	Oil testers or apparatus employed to ascertain the efficiency of oil, grease and equivalent matter when used as lubricants.
SHAW, THOMAS RAMSDEN -	3877	21st Dec. 1868	Method of lubricating the bearings of the shafting, journals of machinery and other journals or bearings.
SHAW, WILLIAM ANTHONY -	1767	28th May 1868	Improvements in the manufacture of lead pipe and lead pipe lined or cased with tin or other metal, and in the machinery employed in such manufacture. (Patented by Hiram Haines.)
SHAW, WRIGHT - - -	2219	14th July 1868	Certain improvements in looms for weaving.
SHAWK, GEORGE WASHINGTON	599	22nd Feb. 1868	Electrical signal or alarm apparatus. (Patented by William Robert Lake.)
SHELDON, EDWIN - - -	2004	20th June 1868	Machinery for cutting or worming screws.
SHELDON, JOSEPH - - -	2815	12th Sept. 1868	Machinery for manufacturing brushes. (Patented by William Robert Lake.)
SHELMERDINE, JONATHAN -	2002	20th June 1868	Valve gear for steam and other motive engines.
SHEPHERD, JAMES - - -	2967	28th Sept. 1868	Apparatus for the prevention of smoke and for regulating the supply of air to furnaces.
SHERMAN, JACOB - - -	3172	16th Oct. 1868	Finger rings and bracelets.
SHERWOOD, BENJAMIN - -	2	1st Jan. 1868	Fire and burglar proof safes. (Patented by William Robert Lake.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SHERWOOD, ISAAC - - -	1173	7th April 1868	Lamps for burning hydrocarbon oils and spirits.
SHILLCOCK, JOSEPH BRADLEY	3655	1st Dec. 1868	Securing the contents of bottles, jars and other similar vessels.
SHILLINGTON, THOMAS [FOULKES.	1221	13th April 1868	Reaping and mowing machines.
SHINTON, THOMAS - - -	1548	12th May 1868	Forming the ends and joints of pipes.
SHOCK, W. H. - - -	2691	31st Aug. 1868	An improved relieving coupling for wire rigging. (Patented by William Robert Lake.)
SHOCK, W. H. - - -	2692	31st Aug. 1868	Projectiles for ordnance and fire-arms. (Patented by William Robert Lake.)
SHORE, GEORGE NATHANIEL -	2433	1st Aug. 1868	Improvements in railway breaks, and in increasing adhesion of the running and driving wheels with the rails of railways.
SHORE, THOMAS - - -	1765	28th May 1868	Improvements in steam generators and in apparatus for heating the feed water therefor.
SHRIMPTON, ZACCHEUS - -	3029	3rd Oct. 1868	Improvements in packing or putting up needles for sale, and in cases or receptacles for needles.
SIBERT, LORENZO - - -	2453	5th Aug. 1868	Manufacture of iron and steel. (Patented by Alfred Vincent Newton.)
SIBLEY, FREEMAN KNOWLTON	3649	30th Nov. 1868	Apparatus for receiving and delivering mail bags and packages on railways. (Patented by Alfred Vincent Newton.)
SIDE, ROBERT - - -	945	20th March 1868	A compound lever introducing gravitation as a motive-power, to supersede a considerable amount of steam power.
SIDE, ROBERT - - -	1310	22nd April 1868	A new machine for obtaining motive-power.
SIEMENS, CHARLES WILLIAM	1172	7th April 1868	Application of gas furnaces to evaporating, smelting, puddling and other manufacturing purposes.
SIEMENS, CHARLES WILLIAM	1253	17th April 1868	Electrical apparatus for transmitting signals and for ascertaining the distance of objects, as also in instruments employed in connection with such signalling apparatus. (Communicated by Dr. Werner Siemens.)
SIEMENS, CHARLES WILLIAM	1462	5th May 1868	Improvements in the manufacture of cast steel and in working furnaces in connection therewith.
SIEMENS, CHARLES WILLIAM	1892	10th June 1868	Improvements in the manufacture of cast steel, and in furnaces and apparatus employed for that purpose.
SIEMENS, CHARLES WILLIAM	3501	18th Nov. 1868	Apparatus for fastening and adjusting telegraphic line wires.
SIEMENS, CHARLES WILLIAM	3569	24th Nov. 1868	Improvements in the manufacture of iron and steel and in furnaces and apparatus connected therewith, part of which improvements are also applicable to the calcining, reducing and burning of ores and granular substances generally.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SIEMENS, D <sup>r</sup> . WERNER - -	1253	17th April 1868	Electrical apparatus for transmitting signals and for ascertaining the distance of objects, as also in instruments employed in connection with such signalling apparatus. (Patented by Charles William Siemens.)
SIEVWRIGHT, WILLIAM, jun <sup>r</sup> . -	3057	7th Oct. 1868	Apparatus used for producing adjustable pressure on rollers used in the manufacture and finishing of textile materials or fabrics.
SILLAR, ROBERT GEORGE -	1954	15th June 1868	Deodorizing and purifying sewage and making manure therefrom.
SILLAR, WILLIAM CAMERON -	1954	15th June 1868	Deodorizing and purifying sewage and making manure therefrom.
SILVESTER, JOHN - - -	3265	24th Oct. 1868	Pressure or steam gauges.
SILVESTER, JOHN - - -	3857	18th Dec. 1868	Pressure or steam gauges.
SIM, THOMAS - - - -	3775	12th Dec. 1868	Improvements in preserving meat and animal matter, and in apparatus employed for that purpose. (Patented by John Millward.)
SIM, ROBERT, M.D. - -	2529	12th Aug. 1868	Compositions for preventing the fouling of ships' bottoms and other buildings exposed to the action of sea or impure water.
SIM, WILLIAM - - -	1680	20th May 1868	Improvements in arrangements or apparatus for watering and cleansing streets and roads, and in the application of apparatus for removing snow, to other purposes.
SIMMONDS, ALEXANDER [HAGUE.]	792	7th March 1868	Machines for hulling or decorticating cotton or other like seed. (Patented by Henry Simmonds.)
SIMMONDS, HENRY - -	792	7th March 1868	Machines for hulling or decorticating cotton or other like seed. (Communicated by Alexander Hague Simmonds.)
SIMON, LOUIS - - -	68	8th Jan. 1868	A new mode of laying metal leaves on printed surfaces and the apparatus connected therewith. (Communicated by Albert Emile Reinhardt.)
SIMONS, EDWARD - - -	3041	6th Oct. 1868	Certain improvements in "breaks" applicable to railway and other carriages.
SIMONS, EDWARD - - -	3721	7th Dec. 1868	Construction of shoes for horses and other animals.
SIMONS, JEAN FRANÇOIS [NICHOLAS BIESMAN.]	3762	10th Dec. 1868	Setting steam-boilers. (Communicated by Charles Nelson.)
SIMONS, WILLIAM - -	3080	8th Oct. 1868	Bricks or blocks to be used for building purposes.
SIMPSON, ARTHUR - -	2570	17th Aug. 1868	Machinery or apparatus for sizing and drying yarns for weaving.
SIMPSON, CHARLES JOHN -	2570	17th Aug. 1868	Machinery or apparatus for sizing and drying yarns for weaving.
SIMPSON, FREDERIC - -	2570	17th Aug. 1868	Machinery or apparatus for sizing and drying yarns for weaving.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SIMPSON, FREDERICK - -	1171	7th April 1868	Improvements in machinery for rolling sheets or plates of iron for the manufacture of tin and terne plates, which improvements may also be used for rolling sheets of iron for other purposes.
SIMPSON, JOSEPH - - -	2372	29th July 1868	Machinery for moulding toothed wheels.
SIMPSON, THOMAS - - -	1330	23rd April 1868	Brushing and sweeping machines.
SIMPSON, WALTER - - -	2570	17th Aug. 1868	Machinery or apparatus for sizing and drying yarns for weaving.
SIMPSON, WILLIAM - - -	3685	3rd Dec. 1868	Lubricating apparatus and the application of the same to machinery.
SIMS, JOHN - - - -	3542	21st Nov. 1868	Manufacture and mode of applying ornaments to woven and felted fabrics.
SIMS, REUBEN - - - -	897	17th March 1868	Certain improvements in agricultural apparatus called horse rakes.
SINCLAIR, JAMES - - -	1089	31st March 1868	Screw propellers.
SINCOCK, JOHN - - - -	3803	26th Nov. 1868	Improvements in ratchet braces, which improvements are also applicable to ordinary ratchet levers and ratchet wheels generally.
SINGER MANUFACTURING [COMPANY (INCORPORATED)].	202	20th Jan. 1868	Improvements in sewing-machines, part of which are applicable to other purposes. (Patented by Alfred Vincent Newton.)
SINGER MANUFACTURING [COMPANY (INCORPORATED)].	1898	10th June 1868	Improved embroidery apparatus to be applied to sewing-machines. (Patented by William Fash Proctor.)
SINGLETON, THOMAS - - -	1595	15th May 1868	Improvements in looms for weaving and in shuttles used therein.
SIVAL, DÉSIRÉ - - - -	974	23rd March 1868	Machinery for the manufacture of lace. (Patented by Clinton Edgcumbe Brooman.)
SIVAL, LÉON - - - - -	974	23rd March 1868	Machinery for the manufacture of lace. (Patented by Clinton Edgcumbe Brooman.)
SKEOCH, DAVID - - - -	1322	22nd April 1868	Spindles used for spinning or twisting yarn.
SKETCHLEY, WILLIAM - -	1461	5th May 1868	Machinery for wood cutting, joinery and mortising.
SLATER, GEORGE - - - -	2141	4th July 1868	An improved machine for plaiting or doubling strips or sheets of cloth, paper and other materials.
SLATER, GEORGE - - - -	3980	29th Dec. 1868	An improved machine for plaiting or doubling strips or sheets of cloth, paper and other materials.
SLATER, JAMES - - - - -	819	10th March 1868	Improvements in heating the feed water for steam-engine and other boilers, to economize the consumption of fuel and feed water, and in apparatus therefor.
SLATER, JAMES - - - - -	1551	13th May 1868	An improved method of breaking up macadamised roads and other surfaces, and apparatus or machinery therefor.
SLATER, WILLIAM - - - -	320	30th Jan. 1868	Machines for spinning and doubling.
SLATER, WILLIAM - - - -	2798	11th Sept. 1868	Wood cutting machinery.
SLEIGH, BURROWES WILL- [COCKS ARTHUR.	733	3rd March 1868	Hydrostatic engines.
SLEIGH, WILLIAM ARTHUR [WARNER.	1101	1st April 1868	An improved appliance for protecting trousers from mud. (Communicated by Henri Fritz Fritsch.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SLOPER, JOSEPH - - -	2741	5th Sept. 1868	Improved means of and apparatus for perforating, punching, cutting or stamping cardboard, metal and other materials, and especially applicable to perforating railway tickets.
SMALE, WILLIAM - - -	914	18th March 1868	Improved machinery or apparatus for figure weaving in combination with a jacquard loom.
SMALL, ANDREW - - -	253	24th Jan. 1868	Apparatus for removing excrements.
SMART, SAMUEL - - -	3908	22nd Dec. 1868	Steam and other boilers.
SMEDLEY, THOMAS - - -	1731	26th May 1868	Brakes for carriages on common roads.
SMISSEN, LOUIS VAN DER -	1743	27th May 1868	Certain improvements in the permanent way of railways. (Patented by Henri Adrien Bonneville.)
SMITH, ALEXANDER - - -	1780	30th May 1868	Apparatus for the manufacture of sugar. (Communicated by Robert Smith.)
SMITH, ALEXANDER - - -	2580	17th Aug. 1868	Improvements in the manufacture of sugar and in apparatus therefor. (Communicated by Robert Smith.)
SMITH, ALPHEUS - - -	712	2nd March 1868	Construction of railway wagon axle boxes.
SMITH, AMBROSE HUDD -	3282	27th Oct. 1868	Method of and apparatus for warming and heating churches, chapels and other buildings.
SMITH, AUGUSTUS - - -	1441	2nd May 1868	Apparatus to be used in connection with furnaces for burning creosote and other combustible liquids.
SMITH, CHRISTOPHER - -	3540	21st Nov. 1863	Washing machines.
SMITH, DILLWYN - - -	1257	17th April 1868	An improved mode of securing tubes in steam-boilers and other vessels. (Communicated by George P. Hunt.)
SMITH, DILLWYN - - -	2663	27th Aug. 1868	Smoke-consuming apparatus.
SMITH, GEORGE - - -	55	7th Jan. 1868	Apparatus for lubricating machinery.
SMITH, GEORGE - - -	1616	16th May 1868	Improvements in pressing and finishing hollowed or chambered bricks and blocks, either of plastic materials or powdered clay dust, for building purposes, and in the apparatus employed therefor.
SMITH, GEORGE - - -	2039	24th June 1868	Improvements in ventilating boots and shoes, and in the apparatus to be employed therein.
SMITH, GEORGE - - -	2328	24th July 1868	Machinery for obtaining rotary motion, and for raising, forcing and measuring fluids.
SMITH, GEORGE BROWNE -	1600	15th May 1868	Dry and wet gas meters.
SMITH, HAMILTON ERASTUS -	3986	31st Dec. 1868	Washing machines. (Patented by Henry-Edward Newton.)
SMITH, HENRY FREDERICK -	1472	5th May 1868	Apparatus employed for expressing oils from seeds or other substances.
SMITH, HUBERT ELLIS - -	742	4th March 1868	Hauling or winding gear of engines used for agricultural and other purposes.
SMITH, HUBERT ELLIS - -	831	10th March 1868	Steam-engines and boilers.
SMITH, HUGH - - -	3591	25th Nov. 1868	Apparatus to be used in playing games.
SMITH, ISAAC - - -	3762	10th Dec. 1868	Setting steam-boilers. (Communicated by Charles Nelson.)
SMITH, ISAAC - - -	3947	26th Dec. 1868	Apparatus for closing casks and filling and drawing off liquid therefrom.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SMITH, JAMES - - -	8166	16th Oct. 1868	Self-feeding smokeless furnaces.
SMITH, JAMES ALEXANDER -	2104	1st July 1868	Photographic apparatus.
SMITH, JOHN - - -	157	17th Jan. 1868	An improved power loom for weaving Brussels carpets.
SMITH, JOHN - - -	472	12th Feb. 1868	Apparatus for boiling animal and vegetable substances, and for evaporating the solutions obtained in such processes.
SMITH, JOHN - - -	2882	18th Sept. 1868	Steam-boilers.
SMITH, JOHN - - -	2975	29th Sept. 1868	Certain improvements in machinery for weaving and cutting fustians and other fabrics.
SMITH, JOHN - - -	3476	16th Nov. 1868	Machinery or apparatus for stretching and finishing woven fabrics.
SMITH, JOHN - - -	3935	24th Dec. 1868	Apparatus for dressing millstones.
SMITH, JOHN HENRY - -	200	20th Jan. 1868	Improvements in ships for containing and transporting oils or burning fluids, also in raising such oils or burning fluids and supplying the same as fuel to the furnaces of steam-ships, parts of which improvements are applicable to the ballasting of ships with water. (Patented by John Henry Johnson.)
SMITH, JOSEPH NOTINGHAM -	3551	23rd Nov. 1868	Presses for compressing and otherwise operating upon metal, hay, bricks, cotton and various other materials. (Patented by Edward Thomas Hughes.)
SMITH, NAPIER - - -	3119	12th Oct. 1868	Treating and utilizing waste acid liquors.
SMITH, RICHARD, junior -	1004	24th March 1868	Improved apparatus or machinery for scouring and hulling grain and seeds.
SMITH, ROBERT - - -	898	17th March 1868	Means and apparatus for extracting foul air or gases from mines, sewers, brewers' vats and other places.
SMITH, ROBERT - - -	1000	24th March 1868	Improvements in machinery for winding cotton, silk and other yarns or threads on to spools, cards or balls, and in additional apparatus to be used when winding balls, for ticketing the same.
SMITH, ROBERT - - -	1780	30th May 1868	Apparatus for the manufacture of sugar. (Patented by Alexander Smith.)
SMITH, ROBERT - - -	2076	27th June 1868	Means employed for preventing the fouling of iron and other ships' bottoms.
SMITH, ROBERT - - -	2560	17th Aug. 1868	Improvements in the manufacture of sugar and in apparatus therefor. (Patented by Alexander Smith.)
SMITH, ROBERT - - -	2871	17th Sept. 1868	Means employed for preventing the fouling of iron and other ships' bottoms.
SMITH, ROBERT - - -	3613	15th Dec. 1868	Improvements applicable to spools or bobbins upon which thread or twine is wound for sewing and other purposes.
SMITH, ROBERT - - -	3866	18th Dec. 1868	Improvements applicable to thread or twine which is wound upon bobbins, spools or other surfaces.
SMITH, ROBERT CATANACH -	351	1st Feb. 1868	Arrangement or construction of sinks or similar apparatus.
SMITH, SAMUEL EDMONDS -	2555	15th Aug. 1868	Manufacture of cages, baskets, guards and other articles of wire work.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[Som]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SMITH, SIDNEY ASHTON -	1711	25th May 1868	Certain improvements applicable to carding-engines.
SMITH, SYDNEY WILLIAM -	3794	14th Dec. 1868	Improved machinery or apparatus for spinning, twisting, doubling, drawing or condensing fibrous materials.
SMITH, THOMAS - - -	456	11th Feb. 1868	Steam-engine counters or registering machines.
SMITH, THOMAS - - -	738	4th March 1868	Improved machinery and appliances for preparing, cleaning, screening, decortivating and grinding wheat and other grain, and separating and collecting the several products thereof.
SMITH, THOMAS - - -	1227	14th April 1868	Improvements in manufacturing wheat and other grain into meal and flour, and in machinery and appliances for that purpose.
SMITH, THOMAS, M.D. - -	3562	23rd Nov. 1868	Improvements in deodorizing and manufacturing manures from sewage and other foul waters, and in apparatus employed therein.
SMITH, THOMAS - - -	3779	12th Dec. 1868	Smiths' bellows.
SMITH, WILLIAM - - -	696	29th Feb. 1868	A new or improved fire-escape.
SMITH, WILLIAM - - -	1102	1st April 1868	Manufacture of pig iron.
SMITH, WILLIAM - - -	1800	15th May 1868	Dry and wet gas meters.
SMITH, WILLIAM - - -	2958	26th Sept. 1868	Improved apparatus for the increase of safety on inclines of railways or tramways.
SMITH, WILLIAM ANDERSON -	32	4th Jan. 1868	Improvements in storing meat for transport whereby it may be preserved, and in apparatus connected therewith.
SMYTH, HENRY - - -	57	7th Jan. 1868	Umbrellas, parasols and sunshades.
SMYTH, ROBERT - - -	2275	20th July 1868	Apparatus for propelling vessels.
SNAPE, JOHN - - -	3910	22nd Dec. 1868	Improvements in pumps or apparatus for drawing and forcing fluids, particularly applicable to the ventilation of mines.
SNELL, WILLIAM - - -	307	29th Jan. 1868	Steam fireproof safes. (Communicated by Ebenezer D. Draper, Russell A. Balton, Edward W. Glover, Edwin Austen Eaton and William Carlton Ireland.)
SNELL, WILLIAM - - -	308	29th Jan. 1868	An improved fireproof powder magazine. (Communicated by Rufus Slocum Sanborn.)
SOANS, RICHARD - - -	1814	3rd June 1868	Machines for removing dirt and foreign matters from currants and other fruit, and for afterwards drying the fruit.
SÖDERSTRÖM, LARS ALBERT [LEONARD.]	3804	15th Dec. 1868	Improvements in the production of motive-power and in the apparatus connected therewith. (Patented by Henri Adrien Bonneville.)
SOLOMONS, BENJAMIN - -	701	29th Feb. 1868	Telescopes.
SOLOMONS, BENJAMIN - -	3576	24th Nov. 1868	Construction and arrangement of meteorological indicators.
SOMERS, DANIEL McLEAN -	395	5th Feb. 1868	Improvements in buttons and in the means for securing them to garments or other articles of wear or use. (Patented by William Edward Newton.)



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SOMERVELL, JOHN - - -	105	11th Jan. 1868	An improved method of obtaining and preserving alimentary substances in a highly concentrated form.
SOMMERVILLE, ALFRED - -	3089	5th Oct. 1868	Repeating fire-arms.
SOPER, WILLIAM - - -	3637	30th Nov. 1868	Breech-loading fire-arms.
SOUL, MATTHEW AUGUSTUS -	2822	14th Sept. 1868	Spring pendulums for chronometers and clocks. (Communicated by Christian Johann Heinrich Carl George Auguste Voss and William Walter James Monnington.)
SOUL, MATTHEW AUGUSTUS -	3296	28th Oct. 1868	Parts of the permanent way of railways. (Communicated by John Gregory.)
SOULAGE, PIERRE ISIDORE -	2767	8th Sept. 1868	An improved indivisible pin to be used in fastenings of jewellery or other fastenings.
SOUTHALL, RICHARD HODGSON	2519	12th Aug. 1868	A new or improved method of and apparatus for protecting the side springs or elastics of boots and shoes.
SOUTHEY, ANTHONY GAPPER -	3504	18th Nov. 1868	Improvements in operations and apparatus for drying down alkaline solutions of extractive matter obtained in preparing vegetable fibrous materials for use in the manufacture of paper, and in recovering alkali therefrom for re-employment.
SOUTHEY, EDMUND RICHARD -	39	6th Jan. 1868	Improvements in separating paraffine from its solutions and in apparatus therefor.
SOUTHEY, EDMUND RICHARD -	1909	11th June 1868	Utilising oleaginous acid waste.
SOUTHMAYD, JOHN - - -	3245	23rd Oct. 1868	Preparing fibre from bamboo or cane for the manufacture of textile fabrics. (Patented by Maurice Sautter.)
SOWDEN, DAVID - - -	2260	18th July 1868	Shuttles employed in looms for weaving. (Communicated by Thomas Hatch.)
SOWERBY, WILLIAM - - -	2026	23rd June 1868	Improvements in rails and in the erection thereof on common roads or tracks for the passage of common carts, waggons, carriages and other vehicles having wheels without flanges.
SPARRE, AMBJORN PIERRE LE [COMTE.]	2049	25th June 1868	Fire-arms and cartridges. (Patented by George Tomlinson Bosfield.)
SPARTALI, NICHOLAS DEME- [TRIUS.]	1786	30th May 1868	Improved apparatus for consuming hydrocarbon oils in the furnaces of marine and other boilers.
SPARTALI, NICHOLAS DEME- [TRIUS.]	1927	12th June 1868	Apparatus for burning hydrocarbon oils for the generation of heat.
SPARTALI, NICHOLAS DEME- [TRIUS.]	2454	5th Aug. 1868	An improved mode of and apparatus for propelling vessels through the water.
SPARTALI, NICHOLAS DEME- [TRIUS.]	3593	25th Nov. 1868	Improvements in the mode of obtaining and in apparatus for applying heat to steam-boilers.
SPEIGHT, GEORGE - - -	3071	8th Oct. 1868	Apparatus for applying adhesive agents to paper and other materials, and for effecting adhesion between pieces of paper and other materials.
SPEIGHT, THOMAS, the elder -	3276	26th Oct. 1868	Wool-combing machines.
SPEIR, THOMAS - - -	3735	8th Dec. 1868	Machinery or apparatus for cultivating land.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

[Spo]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SPEIR, THOMAS - - -	3736	8th Dec. 1868	Machinery or apparatus for ploughing and cultivating land.
SPENCE, JOHN BERGER - -	2856	16th Sept. 1868	A new manufacture of pigments.
SPENCE, PETER - - -	32	4th Jan. 1868	Improvements in storing meat for transport, whereby it may be preserved, and in apparatus connected therewith.
SPENCE, PETER - - -	64	7th Jan. 1868	Improvements applicable to roasting or calcining copper and other ores containing sulphur and also regulus, and in apparatus connected therewith.
SPENCE, PETER - - -	1361	25th April 1868	Improvements applicable to the purification of gas used for illumination.
SPENCE, PETER - - -	2959	26th Sept. 1868	Improvements in the manufacture of copers applicable to the purification of illuminating gas and to other purposes.
SPENCE, PETER - - -	3870	19th Dec. 1868	Manufacture of alum and aluminous salts.
SPENCE, WILLIAM - - -	723	3rd March 1868	Machines for making nails. (Communicated by Joseph Bonneau.)
SPENCE, WILLIAM - - -	2439	4th Aug. 1868	Treatment of auriferous, argentiferous and other ores. (Communicated by Louis Edouard Rivot.)
SPENCER, CHARLES GREEN -	1178	8th April 1868	An improved apparatus or machine for enabling persons to support, raise and propel themselves in and through the air, which apparatus when fitted with suitable mechanism and raised, is also self-supporting and self-propelling.
SPENCER, FREDERICK WIL- [LIAM.]	1436	2nd May 1868	An improved seed and manure drill, parts of which invention are also applicable to other similar agricultural implements.
SPENCER, GEORGE - - -	1436	2nd May 1868	An improved seed and manure drill, parts of which invention are also applicable to other similar agricultural implements.
SPENCER, HENRY - - -	1160	6th April 1868	Machinery for spinning and doubling cotton and other fibrous substances.
SPENCER, JOHN FREDERICK -	204	21st Jan. 1868	Steam-boilers.
SPENCER, JOHN FREDERICK -	205	21st Jan. 1868	Regulating and working the valves of steam and other engines.
SPENCER, JOHN FREDERICK -	912	17th March 1868	Working the valves of steam and other engines.
SPENCER, JOHN FREDERICK -	1620	18th May 1868	Working the valves of steam and other engines.
SPENCER, PHILLIPS - - -	3583	25th Nov. 1868	An improved mode of preparing or making up indigo blue or preparations or compounds of indigo, for the market.
SPENCER, THOMAS - - -	3861	18th Dec. 1868	Improvements in machinery for spinning cotton, silk, wool and other fibrous materials into yarn, and which may also be used for doubling the same, and in each case winding the yarn on to a spindle, in the form of a cop.
SPICE, ROBERT - - -	3135	13th Oct. 1868	Construction of jars intended to contain manufactured tobacco.
SPILL, DANIEL - - -	3984	31st Dec. 1868	Production of compounds containing xylo- idine.
SPONG, JAMES OSBORN - -	963	21st March 1868	Blow-pipes.
SPOONER, CHARLES EASTON -	3605	26th Nov. 1868	Construction of railways.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SPRATT, JAMES - - -	3250	24th Oct. 1868	Improved preparations of food for horses, cattle, game, poultry and other domestic animals, such preparations being capable of admixture with compounds for the production of a medicated food for man.
SPRECKLES, CLAUD - -	1530	11th May 1868	Manufacture or treatment of crushed sugar. <i>(Patented by Ralph Moore.)</i>
SPRING, HENRY - - -	779	6th March 1868	Improvements in the manufacture of bottles and in the apparatus to be employed therein.
SPROUL, JOSEPH - - -	2732	4th Sept. 1868	An improved system of water power.
SPURR, WILLIAM - - -	2480	6th Aug. 1868	Looms for weaving.
STACKPOLE, GREENLEAF -	3000	30th Sept. 1868	Improvements in sewing machines, applicable to other machines worked by foot power. <i>(Patented by Orville Watson Powers.)</i>
STAFFORD, DANIEL STEPHEN	1883	9th June 1868	Construction of carriages used with apparatus or elevators for elevating straw and other produce.
STAFFORD, JOHN - - -	1883	9th June 1868	Construction of carriages used with apparatus or elevators for elevating straw and other produce.
STAFFORD, JOHN - - -	3216	21st Oct. 1868	Improvements in chimney terminals, also applicable to ventilators.
STAFFORD, JOHN WILLIAM -	1883	9th June 1868	Construction of carriages used with apparatus or elevators for elevating straw and other produce.
STAINS, VICTOR DE - -	2005	22nd June 1868	Construction, propulsion and guidance of boats or other vessels.
STANBRIDGE, FREDERICK -	1010	25th March 1868	Improvements in the treatment of mixed fabrics and in the separation of wool from cotton and other substances contained therein.
STANDEN, JAMES - - -	2484	8th Aug. 1868	Construction of multitubular boilers.
STANDISH, PHILANDER HAY- [DEN.]	1333	23rd April 1868	An improved steam cultivator. <i>(Patented by William Robert Lake.)</i>
STANFORD, THOMAS - - -	2004	20th June 1868	Machinery for cutting or worming screws.
STANLEY, JOHN MARTIN -	775	6th March 1868	Construction of furnaces.
STANLEY, JOHN MARTIN -	1478	6th May 1868	Method of and apparatus for obtaining hot air for heating buildings.
STANLEY, WILLIAM FORD -	3878	21st Dec. 1868	Construction of machines for exciting frictional electricity.
STANTON, JAMES MONROE -	1329	23rd April 1868	Furniture castors.
STAPLETON, THOMAS WESNEY	2468	7th Aug. 1868	Breech-loading fire-arms. <i>(Communicated by Pierre Achille Gauthrin and Auguste Pierre Guyot.)</i>
STARLEY, JAMES - - -	1678	21st May 1868	Sewing machinery.
STARNES, JOHN SAMPSON -	2577	18th Aug. 1868	Ships' signal lamps.
STATHER, THOMAS - - -	226	22nd Jan. 1868	Mills for grinding or crushing.
STATHER, THOMAS - - -	580	21st Feb. 1868	Apparatus for washing and drying yarn.
STAYNER, AUGUSTUS E. -	3565	23rd Nov. 1868	Improvements in converting cast iron into wrought iron, and in uniting oxides, fluxes and other substances with molten cast iron. <i>(Patented by Charles Denton Abel.)</i>

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
STEANE, EDWARD SAMUEL [TYRRELL.]	2362	28th July 1868	Manufacture of soap.
STECKEL, JOSEPH LOUIS RENÉ	2943	25th Sept. 1868	Wind musical instruments.
STEEL, JAMES - - -	1635	19th May 1868	Cask-washing apparatus.
STEEL, JAMES - - -	2337	25th July 1868	Cask-washing apparatus.
STEEL, JAMES - - -	3081	8th Oct. 1868	Apparatus for obtaining extracts from roasted malt.
STEEL, WILLIAM HENRY -	550	19th Feb. 1868	Hand saws for cutting dove tails and for other purposes.
STEELE, JAMES - - -	499	14th Feb. 1868	Apparatus for conveying and treating animal charcoal and sugar.
STEFFANSON, HÅKAN - -	2536	13th Aug. 1868	Improved machinery for decorticating grain.
STEFFANSON, HÅKAN - -	3049	6th Oct. 1868	Machinery for sawing wood.
STEFFANSON, HÅKAN - -	3385	7th Nov. 1868	Buffers and draw rod fittings to be used on railways.
STEHÉLIN, EDOUARD - -	156	16th Jan. 1868	Improved machinery or apparatus for shaping, grinding, sharpening and polishing sword blades and handles, scabbards, gun barrels and other arms. (Patented by William Edward Newton.)
STEIN, ANDREW - - -	1854	5th June 1868	Improvements in the manufacture of glass or similar vitreous substances, and in the application of such substances in the construction of buildings.
STEIN, CHARLES - - -	1491	6th May 1868	Improvements in separating tares and other impurities from grain and other seeds, and in the apparatus or means connected therewith. (Communicated by William Walker Gibson and Walter Berry.)
STEIN, MICHAEL JOSEPH -	2448	4th Aug. 1868	Boot and shoe sewing machinery. (Patented by Alfred Vincent Newton.)
STELL, JOHN - - -	3553	23rd Nov. 1868	Apparatus employed in the manufacture of paper tubes.
STELLE, DAVID DUNHAM -	769	5th March 1868	Improved apparatus for cultivating land and sowing seed. (Patented by Alfred Vincent Newton.)
STENGER, AUGUSTUS - -	606	24th Feb. 1868	Umbrellas and parasols.
STENHOUSE, JOHN - -	1402	29th April 1868	Manufacture or preparation of materials for sizing or dressing yarns and textile fabrics.
STENNER, JOSEPH - - -	1436	2nd May 1868	An improved seed and manure drill, parts of which invention are also applicable to other similar agricultural implements.
STEPHEN, ANDREW - - -	1855	5th June 1868	Apparatus for ventilating buildings and other structures.
STEPHENS, ANSON PARSONS -	851	12th March 1868	Vises and similar clamping mechanism.
STEPHENS, JOHN - - -	3450	13th Nov. 1868	Apparatus applicable to carriage wheels to facilitate the draft.
STEPHENS, THOMAS - - -	296	28th Jan. 1868	An improved pavement. (Patented by William Robert Lake.)
STEPHENSON, REUBEN CAL- [VERT.]	2260	18th July 1868	Shuttles employed in looms for weaving. (Communicated by Thomas Hatch.)
STERNE, LOUIS - - -	1811	2nd June 1868	Manufacture of driving belts, bands or straps.
STERRY, ARTHUR CHARLES -	381	4th Feb. 1868	Improvements in and applicable to locomotive engines and carriages on railways.

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## ALPHABETICAL INDEX OF PATENTERS

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
STERRY, ARTHUR CHARLES -	610	24th Feb. 1868	Treatment of paraffine.
STERRY, ARTHUR CHARLES -	648	26th Feb. 1868	Purifying hydrocarbon oils.
STERRY, ARTHUR CHARLES -	2356	27th July 1868	Treating animal and vegetable oils, fats, fatty acids, wax, resins, essential oils, balsams, and the solid and liquid hydrocarbons.
STERRY, ARTHUR CHARLES -	3698	4th Dec. 1868	Improvements in the mode of treating and purifying paraffine, and in apparatus to be used therein.
STEVENS, BRYAN WILLIAM -	3003	30th Sept. 1868	Picker spindles or guide bars of looms for weaving.
STEVENS, EBENEZER - -	3613	27th Nov. 1868	Means and instruments employed for sharpening knives, scissors and other edged tools and articles of cutlery.
STEVENS, FRANCIS KIRBY -	394	5th Feb. 1868	Mowing and reaping machines. (Patented by William Edward Newton.)
STEVENS, JAMES JOHN - -	3793	14th Dec. 1868	Apparatus for working railway switches, points and signals.
STEVENS, JAMES JOHN FRE- [DERICK.	756	5th March 1868	Construction of railway and other signal apparatus.
STEVENS, LEVI - - -	891	16th March 1868	Improvements in the manufacture of illuminating gas, in the distillation of hydrocarbons, and the making of gaseous fuel for heating purposes. (Patented by William Edward Newton.)
STEVENSON, NATHANIEL -	2901	21st Sept. 1868	A novel method of working ornamental fountains.
STEWART, CHARLES A. - -	1162	6th April 1868	Anchors. (Patented by Alfred Vincent Newton.)
STEWART, DAVID YOOLOW -	238	23rd Jan. 1868	Improvements in the manufacture of cast-iron pipes and similar articles, and in the moulds and arrangement of apparatus connected therewith.
STEWART, JOHN - - -	2769	8th Sept. 1868	Improvements in continuous expansion engines, and in the valves to be used therewith or with ordinary engines.
STIDDER, JAMES GEORGE -	674	28th Feb. 1868	Improvements in water-closets, lavatories and urinals, and in regulating supplies for same by water valves.
STIDOLPH, GEORGE FRE- [DERICK.	1330	23rd April 1868	Brushing and sweeping machines.
STIDOLPH, JOHN - - -	1330	23rd April 1868	Brushing and sweeping machines.
STIEHL, THEODOR - - -	1703	23rd May 1868	An improved apparatus for causing the circulation of water in steam-boilers. (Patented by Francis Wirth.)
STIFF, WILLIAM CHARLES -	2077	27th June 1868	Improvements in breech-loading fire-arms and ordnance, and in cartridges for breech-loading fire-arms.
STILL, ALFRED HENRY - -	1195	9th April 1868	Manufacture of gas.
STOCKER, ALEXANDER SOUTH- [WOOD.	675	28th Feb. 1868	Improvements in machinery or apparatus for the manufacture of caps or covers applicable to bottles and other vessels, and in the construction of such or other caps or covers.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
STOCKER, ALEXANDER SOUTH- [WOOD.	1917	11th June 1868	Improvements appertaining to infants' feeding bottles, and in the manufacture, combination and employment of the whole or part of the articles to be used therewith, part of which may also be beneficially employed for other purposes.
STOCKER, ALEXANDER RICH- [MOND.	2763	8th Sept. 1868	Improvements in hollow caps and stoppers, and the employment of them with bottles and other vessels, and in the machinery, apparatus or means to be used for producing part of the same, also improvements in the articles to be employed with such or other caps, and the means for constructing them.
STOCKMAN, BENJAMIN PRYOR	2563	17th Aug. 1868	Water meters.
STOCKMANN, PAUL EMIL [LOUIS WILHELM.	2904	21st Sept. 1868	Tents.
STOKES, EDWARD - - -	2756	7th Sept. 1868	An improved pearl ornament for ladies' wear, suitable for necklets, bracelets and the like.
STOKES, EDWARD BRADNEY -	2756	7th Sept. 1868	An improved pearl ornament for ladies' wear, suitable for necklets, bracelets and the like.
STOKES, HARRY - - -	2756	7th Sept. 1868	An improved pearl ornament for ladies' wear, suitable for necklets, bracelets and the like.
STOKES, JOSEPH - - -	2756	7th Sept. 1868	An improved pearl ornament for ladies' wear, suitable for necklets, bracelets and the like.
STOKES, THOMAS - - -	41	6th Jan. 1868	Manufacture of piled fabrics in imitation of the fleece or fur of animals.
STONE, CECIL PERCIVAL -	2249	17th July 1868	Construction of vessels of war.
STONE, LUCIEN BONAPARTE -	3584	25th Nov. 1868	Machinery for manufacturing cigars. (Patented by William Robert Lake.)
STONER, JOHN BENJAMIN -	467	11th Feb. 1868	An improved apparatus for saving life in cases of shipwreck. (Patented by William Edward Newton.)
STONER, JOHN BENJAMIN -	853	12th March 1868	Ballasting vessels. (Patented by William Edward Newton.)
STONEY, JOSEPH ROBERTS -	460	11th Feb. 1868	Improved appliances for the consumption of smoke and the economizing of fuel in steam-boiler and other furnaces.
STORER, DAVID - - -	252	24th Jan. 1868	Vessels or cannisters to be used for holding liquids, solids and other substances, for the purpose of economising space and freight.
STORER, JAMES - - -	252	24th Jan. 1868	Vessels or cannisters to be used for holding liquids, solids and other substances, for the purpose of economising space and freight.
STORKE, ELLIOT G. - -	1779	30th May 1868	Machines for stitching and sewing the edges of button, eyelet and other holes, in cloth, leather and other materials, and for stitching or sewing the edges of cloth, leather and other materials generally. (Patented by Henri Adrien Bonneville.)
STRAKER, ALBERT GEORGE -	3046	6th Oct. 1868	An improved kind of sample bag or envelope for the transmission of samples or patterns of merchandise by post.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
STRANG, WILLIAM - - -	2667	28th Aug. 1868	Arrangements and apparatus for dealing with sewage.
STRATTON, JAMES - - -	2745	5th Sept. 1868	Apparatus for manufacturing gas. (Patented by William Taillock and Christopher Nicolay Abelseth.)
STRAUSS, ADOLPH - - -	1503	7th May 1868	An improvement in pipes for smoking.
STREATOR, WORTHY STEVENS	3723	7th Dec. 1868	Improvements in railway carriage wheels, parts of which improvements are applicable to locomotive wheels. (Patented by William Robert Lake.)
STRONG, ALFRED - - -	1416	30th April 1868	An improved mode of combining certain materials in the construction of walls and the roofs and floors of houses and other buildings.
STRONG, THOMAS JEFFERSON	1537	11th May 1868	An improved device for holding scrubbing brushes. (Patented by William Robert Lake.)
STROUDLEY, WILLIAM - -	5	1st Jan. 1868	Re-railing or replacing carriages or waggons on rails of railways.
STROUSE, DEMETRIUS BITTLE	2743	5th Sept. 1868	Mariners' compasses. (Patented by William Edward Newton.)
STUART, JOHN CHIENE - -	223	22nd Jan. 1868	An improved spray producer for the production of medicated vapours.
STUART, LABAN CLARKE -	647	26th Feb. 1868	Electro-magnetic apparatus. (Patented by Alfred Vincent Newton.)
STUART, WILLIAM KNOX -	744	4th March 1868	Arrangements and apparatus for dealing with and utilising sewage.
STUCKEY, SAMUEL - - -	1064	28th March 1868	Revolving iron shutters.
STUMMER-TRAUNFELS, JOSEF [RITTER VON.]	96	10th Jan. 1868	Manufacture of artificial fuel. (Patented by John Martin Rowan.)
STURGEON, THOMAS - - -	3752	9th Dec. 1868	Improvements in electrical apparatus for communicating between passengers, guards and engine drivers on trains, and for displaying the names of stations, in carriages, parts of which are applicable for effecting communication between persons under other circumstances, and for other electrical apparatus.
STURROCK, JAMES - - -	3388	7th Nov. 1868	Improvements in metallic caps and in their application to bottles or other vessels.
STURROCK, JAMES - - -	3557	23rd Nov. 1868	Improvements in metallic or other caps and in their application to bottles or other vessels.
SUGG, WILLIAM THOMAS -	438	8th Feb. 1868	Valves.
SUGG, WILLIAM THOMAS -	3133	13th Oct. 1868	Improvements in apparatus for regulating the supply of gas and in fittings connected therewith, which are also applicable to other purposes.
SULLIVAN, EUGENE - - -	2180	9th July 1868	Bearing surfaces of horse collars, riding and harness saddles and similar articles. (Patented by Thomas Nuttall.)
SULLIVAN, JOHN GILES -	1287	20th April 1868	Machinery for making bricks.
SUSER, HENRI - - -	2796	10th Sept. 1868	Improvements in the ornamentation of boot and shoe straps, and in elastic side springs. (Patented by Arthur Charles Henderson.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SUTRAC, NOEL AUGUSTE -	2870	17th Sept. 1868	An improved mode of advertising and improved envelopes to be used therein. (Patented by John Henry Johnson.)
SUTCLIFFE, JAMES - - -	2955	26th Sept. 1868	Warping mills and hecks.
SUTCLIFFE, JOHN - - -	1203	11th April 1868	Outline maps, charts, plans and similar other articles for educational purposes.
SUTHERLAND, FREDERICK [DANIEL.]	3529	20th Nov. 1868	Improved cravat holders or fasteners.
SUTHERLAND, JAMES - -	3260	24th Oct. 1868	Steam pumps. (Patented by Henry Edward Newton.)
SUTTON, CHARLES THOMAS -	2028	24th June 1868	Apparatus to be used for educational purposes, to illustrate the propulsive force of steam and the action of the screw propeller.
SWANN, JOHN RUSSELL -	3561	23rd Nov. 1868	Improvements in burning lime and in kilns therein employed.
SWANN, JOHN RUSSELL -	3699	4th Dec. 1868	Kilns for calcining limestone.
SWEATNAM, JOHN LEVESON [LEEK.]	3402	9th Nov. 1868	Kilns for burning bricks, tiles, cements, pottery and porcelain ware, and other articles or substances.
SWEET, JOHN EDSON - -	1079	30th March 1868	Metal ties for securing bales of cotton or other substance. (Patented by James Francis Hadland.)
SWINDELLS, ISRAEL - -	835	11th March 1868	Utilization of the waste products arising from esparto grass and other fibrous materials used in the manufacture of paper and other purposes.
SWINDELLS, ISRAEL - -	836	11th March 1868	Manufacture of sulphate of magnesia.
SWITHEBANK, HENRY -	3604	26th Nov. 1868	Apparatus to be used in the manufacture and finishing of hats. (Partly communicated by Charles' Columba.)
SYKES, JOHN - - -	3206	20th Oct. 1868	An improved composition to be used for "filling up" the bodies of carriages and other substances previous to receiving the colouring matter.
SYMINGTON, WILLIAM WELDON	1286	20th April 1868	Machinery for sizeing, tarring, dyeing, drying and finishing laid and other twines, lines, yarns, threads and fibres.
SYMINGTON, WILLIAM WELDON	2411	31st July 1868	Machinery for cutting up or reducing loaf sugar.
SYMONS, HERMON - - -	791	7th March 1868	Fire guards and fire screens.
SZERELMEY, NICHOLAS [CHARLES.]	440	8th Feb. 1868	Rendering paper, fabrics and other articles waterproof.
SZERELMEY, NICHOLAS [CHARLES.]	441	8th Feb. 1868	Preserving wood.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
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TACK, AUGUSTE - - -	1430	1st May 1868	An improved process for transforming hydrocarbon oils into gas for illuminating and heating purposes.
TAFT, JOHN - - -	3513	19th Nov. 1868	Improvements in machinery or apparatus for grinding "cards" of carding-engines, and in the method of lubricating the bearings of the said apparatus, applicable also to the lubricating of the bearings of other machinery.
TAILLOTTE - - -	1505	7th May 1868	An improved portable apparatus for administering resinous sudations. (Patented by William Edward Gedge.)
TAINTOR, CHARLES MUSIER -	611	24th Feb. 1868	Manufacture of illuminating gas. (Patented by William Edward Newton.)
TALCOTT, DANIEL - - -	494	13th Feb. 1868	An improved whip-holder. (Patented by William Robert Lake.)
TALL, JOSEPH - - -	2612	21st Aug. 1868	Improved apparatus to be employed in the construction of walls, houses or other buildings.
TANDY, GEORGE GRAINGER -	535	18th Feb. 1868	An improved preparation or compound applicable for insulating electric conductors, and for such purposes as india-rubber and other vulcanisable gums are applicable.
TANGYE, JOSEPH - - -	2966	26th Sept. 1868	Hydraulic machinery for pulling heavy weights and straightening metal shafts, bars, beams, rails and tubes.
TANSLEY, JAMES - - -	453	10th Feb. 1868	Apparatus for working the rollers of blinds, shutters and maps.
TARDIEU, ADRIEN - - -	2379	29th July 1868	An improved cutting and polishing powder applicable in the manufacture of cutting, grinding and sharpening tools, and in the production of refractory substances. (Patented by Alfred Vincent Newton.)
TASKER, WILLIAM - - -	310	29th Jan. 1868	An improved machine for opening and cleaning cotton, applicable also for other purposes. (Communicated by Samuel Fay.)
TASKER, WILLIAM - - -	1599	13th May 1868	Steam-engines.
TASKER, WILLIAM, the younger	2170	8th July 1868	Machinery or apparatus for elevating straw and other produce.
TASKER, WILLIAM HENRY -	518	17th Feb. 1868	Improvements in or applicable to machinery for spinning and twisting fibrous substances.
TASKIN, LEOPOLD - - -	2187	10th July 1868	An improved mode of cutting or utilizing old railway rails, and an improved construction of apparatus to be employed therefor. (Patented by Clinton Edgcumbe Brooman.)
TASSIE, PETER - - -	2298	22nd July 1868	Machinery or apparatus for plaiting, folding or lapping textile fabrics, paper, pattern cards or similar materials.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TATE, JAMES - - -	1802	2nd June 1868	A new or improved method of manufacturing points for railways.
TATE, WILLIAM - - -	38	6th Jan. 1868	An improved mode or method of and apparatus for laying fog signals on railways.
TATLOCK, WILLIAM - -	2745	5th Sept. 1868	Apparatus for manufacturing gas. (Communicated by James Stratton.)
TATTERS, JAMES GRAHAM -	569	20th Feb. 1868	Preparation of cigars.
TATTERS, JAMES GRAHAM -	946	20th March 1868	Preparation of cigars and mode of lighting the same.
TATTERSALL, JOB - - -	2678	29th Aug. 1868	Machinery or apparatus employed for grinding "cards" used in the preparation of cotton, wool and other fibrous substances.
TATTERSALL, THOMAS - -	2678	29th Aug. 1868	Machinery or apparatus employed for grinding "cards" used in the preparation of cotton, wool and other fibrous substances.
TAUNTON, EDMUND WILLIAM [PYLE.]	3674	2nd Dec. 1868	Improvements in or additions to chairs. (Communicated by Thomas Sampson.)
TAUNTON, WILLIAM GEORGE [HENRY.]	494	13th Feb. 1868	Improvements in the construction of pumps and in mechanism employed in working the same.
TAVERDON, CLAUDE LUDOVIC	1645	20th May 1868	An improved lift-and-force double action pump giving a continuous and regular supply of liquid.
TAYLOR, ADAM - - -	859	13th March 1868	Brakes or apparatus to controul the rotation of an axis.
TAYLOR, ALFRED - - -	2106	2nd July 1868	Certain improvements in neck-ties or cravats and in fasteners for the same, and which fastener may be used as a fastening in combination with shirts and shirt collars.
TAYLOR, ALFRED - - -	2227	15th July 1868	Certain improvements in spring studs applicable for uniting and securing together wristbands, shirt and dress fronts, collars and other articles or parts of dress.
TAYLOR, ALFRED - - -	2416	31st July 1868	Certain improvements in fastenings for brooches, buckles and other like articles.
TAYLOR, CHARLES EDWARD -	951	20th March 1868	Stands or tables for sewing-machines and other purposes.
TAYLOR, FREDERICK - -	1087	31st March 1868	Fittings of railway carriages.
TAYLOR, GEORGE - - -	2915	22nd June 1868	Improvements in the construction of boots and shoes, also in means to be used in connection with such construction.
TAYLOR, JAMES - - -	2058	26th June 1868	Machinery or arrangements for opening, cleaning and preparing cotton and other fibrous materials.
TAYLOR, JAMES - - -	2213	14th July 1868	Method of and machinery or apparatus for propelling ships or vessels.
TAYLOR, JAMES, the younger -	3371	6th Nov. 1868	Improvements in steam-boilers and in the furnace doors and fire bridges of steam-boilers.
TAYLOR, JAMES MATHEW [HENRY.]	2213	14th July 1868	Method of and machinery or apparatus for propelling ships or vessels.
TAYLOR, JOHN - - -	1047	27th March 1868	An apparatus for cleaning the flues of boilers and boiler seatings.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TAYLOR, JOHN GEORGE - -	523	17th Feb. 1868	Improvements in puzzles and puzzle chains, and in the applications thereof.
TAYLOR, SAMUEL GEE - -	389	5th Feb. 1868	An improved mode of lubricating the spindles of machines for spinning and doubling.
TAYLOR, THEODORE F. - -	3344	4th Nov. 1868	An improved low-water alarm apparatus for steam-boilers. (Patented by William Robert Lake.)
TAYLOR, THOMAS - - -	3155	15th Oct. 1868	A new and useful improvement in elastic moulds. (Patented by Henri Adrien Bonneville.)
TAYLOR, THOMAS WALMSLEY	581	21st Feb. 1868	A self-acting registering apparatus to register the number of persons entering into and on omnibuses or similar vehicles plying for hire.
TAYLOR, WILLIAM - - -	951	20th March 1868	Stands or tables for sewing-machines and other purposes.
TAYLOR, WILLIAM - - -	1480	5th May 1868	Improvements in the construction of iron and steel ships and other floating bodies, and in the mode of attaching or connecting and fixing wood planks to the sides and bottoms thereof, to receive the metal sheathing and other external and also internal fittings of iron and steel ships and other floating bodies.
TAYLOR, WILLIAM - - -	1561	13th May 1868	Improvements in the construction of iron and steel ships and other floating bodies, and in the mode of attaching or connecting and fixing wood planks to the sides and bottoms thereof, to receive the metal sheathing and other external and also internal fittings of iron and steel ships and other floating bodies.
TAYSEN, PETER - - -	1470	5th May 1868	Manufacture of paint for the protection of iron and other metals from the destructive influence of sea water, and for the prevention of fouling. (Communicated by Hans Wilhelm Matzen.)
TCHEPLEVSKY, NICOLAS -	3042	6th Oct. 1868	An improved enamel applicable to wood, paper, textile fabrics and other surfaces, to render them impervious to spirits, oils, gases or other similar fluids. (Communicated by Otto Carl Ramstedt.)
TEMPELHOFF, EDUARD - -	2879	18th Sept. 1868	A potato planting machine.
TEMPLETON, JOHN STEWART -	3614	27th Nov. 1868	Brussels and Wilton carpets.
TENWICK, JOHN - - -	2826	14th Sept. 1868	Construction of annealing ovens and kilns.
TERREL, EDMOND PHILIBERT [JEAN LOUIS.]	1897	10th June 1868	An improved apparatus for heating wine and other fermentable liquids, part of such apparatus being applicable to other purposes.
TERRERO, MAXIMO - - -	1457	4th May 1868	Means of and apparatus for preserving animal and vegetable substances.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
THEILER, MEINRAD - -	1840	5th June 1868	New or improved machines or apparatus for punching or preparing strips of paper or other suitable material for the automatical transmission of telegraphic messages and for other purposes, and improvements in apparatus for regulating the speed of telegraphic instruments, parts of which invention as indicated above are also applicable for other purposes.
THENARD, ARNOULD EUGÈNE [GEORGES.	1914	11th June 1868	An improved system or method of and apparatus for effecting the combustion of fuel for the more perfect utilization thereof.
THIBAUDIERE, HENRY DE LA -	3503	18th Nov. 1868	An improved liquid or composition for oiling or greasing wool and other textile materials. (Patented by Clinton Edgumbe Brooman.)
THIBAUT, CHARLES FRANÇOIS	2292	21st July 1868	Apparatus for feeding steam-boilers and liquid or fluid reservoirs, partly applicable to pumps. (Patented by Alexander Melville Clark.)
THIBIERGE, GERMAIN [ADOLPHE.	2329	24th July 1868	Preserving animal and vegetable substances.
THICTHENER, WILLIAM [JOSEPHAT.	3730	8th Dec. 1868	Chronometer and other lever watches.
THIERRY, ALFRED JEAN [BAPTISTE PIERRE.	1990	19th June 1868	Marine velocipedes or vessels.
THOMA, ALOIS - - -	909	17th March 1868	Improvements in producing steel and cast steel, and in furnaces or apparatus used therein. (Patented by William Edward Newton.)
THOMA, ALOIS - - -	910	17th March 1868	Improvements in the process of preparing iron ore for smelting and in furnaces therefor. (Patented by William Edward Newton.)
THOMAS, EDWIN - - -	3211	20th Oct. 1868	Boots and shoes. (Patented by John Henry Johnson.)
THOMAS, EVAN - - -	203	21st Jan. 1868	An improvement in the construction of miners' safety lamps, in such a manner as to enable petroleum or other mineral oils to be consumed therein.
THOMAS, GEORGE - - -	681	28th Feb. 1868	Certain improvements in sewing-machines.
THOMAS, GEORGE - - -	3486	16th Nov. 1868	Suspension bridges.
THOMAS, JENKIN - - -	3798	14th Dec. 1868	An improved tea-kettle.
THOMAS, JOHN - - -	2265	18th July 1868	Furnaces for smelting and melting.
THOMAS, LUKE - - -	2061	26th June 1868	A new or improved apparatus to be used along shore, for the distillation of pure water from salt water, or water impregnated with earthy or other matters.
THOMAS, WILLIAM - - -	2928	23rd Sept. 1868	Construction of circular saws or cutters more especially applicable for cutting slate and stone.
THOMAS, WILLIAM - - -	3445	13th Nov. 1868	Manufacture of boots and shoes.
THOMAS, WILLIAM FREDERICK	3854	18th Dec. 1868	Sewing-machines.
THOMASSIN, LÉON STANISLAS	1948	15th June 1868	Process of and apparatus for producing combustible and illuminating gas.
THOMPSON, CHARLES - -	3585	25th Nov. 1868	Looms for weaving.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
THOMPSON, HENRY - -	2020	22nd Aug. 1868	Improved methods of and apparatus for "roughing" horses.
THOMPSON, HENRY - -	3190	19th Oct. 1868	An improved submarine telescopic lantern. (Patented by Alexander Clark.)
THOMPSON, HENRY GRAHAM -	98	10th Jan. 1868	Apparatus for sewing the backs of books for the purpose of binding the series of numbers or separate sections of a book or volume together. (Patented by John Garrett Tongue.)
THOMPSON, HENRY GRAHAM -	109	11th Jan. 1868	Machinery or apparatus for sizing the backs of carpets and other pile fabrics. (Patented by John Garrett Tongue.)
THOMPSON, HENRY GRAHAM -	1604	16th May 1868	Apparatus for sewing or stitching together the numbers or separate parts of a volume in the operation of book-binding. (Patented by John Garrett Tongue.)
THOMPSON, HENRY GRAHAM -	3881	21st Dec. 1868	Improvements in the manufacture of carpets and other figured fabrics, and in weaving machinery employed therein.
THOMPSON, HENRY GRAHAM -	3923	23rd Dec. 1868	A new and improved manufacture of figured terry or cut pile carpets and other figured fabrics.
THOMPSON, JACOB BAYNES -	2545	14th Aug. 1868	Improvements in coating iron and steel with gold, silver and copper, and in apparatus for carrying out the same.
THOMPSON, JAMES - - -	2514	12th Aug. 1868	Reducing and utilizing certain descriptions of scrap homogeneous iron or steel.
THOMPSON, JOHN - - -	332	30th Jan. 1868	Feeding bottles for invalids and infants.
THOMPSON, JOHN - - -	537	18th Feb. 1868	Fastening railway rails.
THOMPSON, JOHN - - -	798	7th March 1868	Improvements in fixing door and other knobs and in connecting knobs to spindles.
THOMPSON, JOHN - - -	907	17th March 1868	Machinery for shaping wood, applicable especially for producing spokes for wheels.
THOMPSON, JOHN - - -	2223	14th July 1868	Caps for feeding bottles for infants and invalids.
THOMPSON, JOSEPH - - -	537	18th Feb. 1868	Fastening railway rails.
THOMPSON, JOSEPH - - -	798	7th March 1868	Improvements in fixing door and other knobs and in connecting knobs to spindles.
THOMPSON, JOSEPH - - -	907	17th March 1868	Machinery for shaping wood, applicable especially for producing spokes for wheels.
THOMPSON, WALKDEN - -	226	22nd Jan. 1868	Mills for grinding or crushing.
THOMPSON, WALKDEN - -	580	21st Feb. 1868	Apparatus for washing and drying yarn.
THOMPSON, WILLIAM - -	846	12th March 1868	Manufacture of iron castings.
THOMPSON, WILLIAM - -	2799	11th Sept. 1868	Machinery or apparatus for sifting, cutting and mixing tea.
THOMPSON, WILLIAM - -	3514	19th Nov. 1868	Cases or boxes for packing bottles and jars.
THOMPSON, WILLIAM BRUCE -	720	3rd March 1868	Machinery or apparatus for winding yarn or threads.
THOMSON, ANDREW - - -	2059	26th June 1868	Waterclosets.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
THOMSON, DAVID - - -	1153	6th April 1868	Improvements in pumping engines and steam-boilers therefor, which steam-boilers are also applicable to other purposes.
THOMSON, DAVID - - -	3703	5th Dec. 1868	Sawing machinery.
THOMSON, GEORGE - - -	3112	10th Oct. 1868	Improvements in calcining ores, minerals and other substances, and in furnaces therefor.
THOMSON, JAMES - - -	2149	7th July 1868	Chimney tops and ventilators.
THOMSON, JOHN - - -	643	26th Feb. 1868	Apparatus for exhausting gas, for blowing air, for pumping or forcing liquids, and for measuring liquids.
THOMSON, WILLIAM - - -	1973	18th June 1868	Rails and chairs for railways.
THOMSON, WILLIAM - - -	2583	18th Aug. 1868	Improvements in tools or apparatus for expanding and cutting tubes and metallic rings, part of which improvements is applicable for withdrawing ferrules from the ends of boiler tubes.
THOMSON, WILLIAM SPARKS -	2004	26th June 1868	Machinery for spinning hemp and other textile fabrics. (Patented by Alexander Horace Brandon.)
THOMSON, WILLIAM SPARKS -	3424	11th Nov. 1868	Manufacture of corsets, jackets, mantles and other like garments.
THOMSON, WILLIAM SPARKS -	3872	19th Dec. 1868	Ladies' skirts. (Communicated by Charles Langdon.)
THORMAN, ARTHUR JAMES -	2348	27th July 1868	Means of and apparatus for obtaining and applying motive-power. (Communicated by Johann Ernst Friedrich Lüdeke.)
THORNHILL, JAMES - - -	3197	20th Oct. 1868	Certain improvements in motive-power engines.
THORNILEY, JOSHUA - - -	3836	17th Dec. 1868	An improved process of restoring or renewing worn out files.
THORNTON, EDWIN MARTIN -	3918	23rd Dec. 1868	Improvements in "footstools," foot-cushions or hassocks, which improvements may also be applied to chairs, couches or other similar articles of furniture.
THORNTON, GEORGE - - -	312	29th Jan. 1868	Improvements in straw elevators to take straw from thrashing machines.
THORNTON, HARRY - - -	640	26th Feb. 1868	Improvements in the construction of walls, floors and roofs for buildings in which concrete and iron are used, and in apparatus employed therein.
THORNTON, JAMES - - -	474	12th Feb. 1868	Portable weighing apparatus.
THOROLD, ERNEST - - -	957	20th March 1868	Manufacture of packing for stuffing-boxes, pistons and bearings. (Patented by Sidengham Duer.)
THOROLD, WILLIAM - - -	2531	13th Aug. 1868	A new or improved system of railways and rolling stock therefor, and the arrangement of electric telegraph line wires in connection therewith.
THORPE, ABNER - - -	3015	1st Oct. 1868	Improvements in chairs, cages or hoists used in mines, shafts or lifts, and in the machinery or apparatus employed therein.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
THROCKMORTON, WILLIAM [NATHAN.]	1040	26th March 1868	Improved machinery for the manufacture of collars, cuffs, and other articles of dress made of paper or paper and cloth combined. (Patented by Benjamin Browne.)
THROOP, GARDNER E. - -	446	10th Feb. 1868	An improved machine for scouring and cleaning grain. (Patented by William Robert Lake.)
THUILLIER-GELLÉE, FIRMIN [NATALIS.]	793	7th March 1868	Combing machinery. (Patented by Clinton Edgcumbe Brooman.)
THUNDER, ANDREW - -	574	20th Feb. 1868	Stoves or furnaces for heating air. (Patented by William Robert Lake.)
THURGAR, AUGUSTUS HENRY -	275	27th Jan. 1868	Securing the corks of bottles containing champagne and other effervescing liquids.
THURSTON, BENJAMIN WAERNES	2700	1st Sept. 1868	Apparatus used in the manufacture of gas. (Patented by William Cartwright Holmes.)
TIDCOMBE, GEORGE - -	2625	24th Aug. 1868	Means for removing dirt from the bottoms of boots, shoes and goloshes.
TIDCOMBE, GEORGE, the [younger.]	3905	22nd Dec. 1868	Improvements in apparatus for conducting paper from paper making machinery or otherwise, in order to its being cut into sheets, and also for facilitating the collecting of paper as cut into sheets, and in damping paper for printing.
TIDMARSH, JOHN - - -	3664	2nd Dec. 1868	Apparatus for clipping or shearing horses and other animals.
TIDMARSH, SAMUEL - -	1372	27th April 1868	Locks.
TIJOU, WILLIAM - - -	1655	20th May 1868	Steam pumps.
TILDESLEY, MATTHEW - -	248	23rd Jan. 1868	Construction of furnaces, stoves and fire-places.
TIMMINS, DANIEL - - -	189	18th Jan. 1868	Motive-power engines.
TOCHÉ, JULES - - -	1819	3rd June 1868	Production of iodine. (Patented by Charles Denton Abel.)
TOD, ROBERT - - -	3113	10th Oct. 1868	Apparatus for separating and cleaning sharps or middlings, groats of wheat and other partially ground grain. (Communicated by Von Eschelsvies.)
TOFT, JAMES - - -	1933	13th June 1868	Lathes for turning and boring wood and other materials.
TOLHAUSEN, FREDERICK -	490	13th Feb. 1868	New or improved processes and machinery or apparatus for brush making. (Communicated by Alexandre Joseph Marie Rennes.)
TOLSON, JAMES - - -	144	16th Jan. 1868	Mule spinning machinery.
TOLSON, JAMES - - -	359	3rd Feb. 1868	Means and apparatus for fettling or cleaning the cards of scribbling or carding-engines, or other machines having cylinders or rollers clothed with cards, used in the preparation of wool, cotton or other fibrous substances.
TOMLINSON, EDWARD - -	229	22nd Jan. 1868	Means and apparatus for ornamenting, printing, coloring, enamelling, staining, embossing, cutting, creasing, bending and manufacturing articles from wood and other material.
TOMLINSON, JAMES - -	67	8th Jan. 1868	Machinery for twisting and untwisting flax, hemp and other fibrous substances.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TOMLINSON, JAMES - -	141	16th Jan. 1868	Machinery for clearing and smoothing yarn and thread.
TOMLINSON, JAMES - -	2194	11th July 1868	Machinery and apparatus for clearing, smoothing, stretching and finishing yarn and thread.
TOMS, THOMAS - - -	2701	1st Sept. 1868	Waterproof shooting and walking boots.
TONGUE, JOHN GARRETT -	98	10th Jan. 1868	Apparatus for sewing the backs of books for the purpose of binding the series of numbers or separate sections of a book or volume together. (Communicated by Henry Graham Thompson.)
TONGUE, JOHN GARRETT -	109	11th Jan. 1868	Machinery or apparatus for sizing the backs of carpets and other pile fabrics. (Communicated by Henry Graham Thompson.)
TONGUE, JOHN GARRETT -	786	6th March 1868	Construction of steam-boilers. (Communicated by Auguste Léon Bézy and Isidore Agnan Desnoyers.)
TONGUE, JOHN GARRETT -	1134	3rd April 1868	Lamps or apparatus for lighting or illuminating purposes. (Communicated by Casimir Rakowski.)
TONGUE, JOHN GARRETT -	1604	16th May 1868	Apparatus for sewing or stitching together the numbers or separate parts of a volume, in the operation of book-binding. (Communicated by Henry Graham Thompson.)
TONGUE, JOHN GARRETT -	2575	18th Aug. 1868	Mills for grinding. (Communicated by Charles Umfrid.)
TONGUE, JOHN GARRETT -	3304	28th Oct. 1868	A new and improved combination, application and arrangement of apparatus for giving warning signals or otherwise indicating the presence of fire, or any undue increase or variation of temperature, in apartments, buildings, vessels, mines or other places. (Communicated by Jules Leblan.)
TONGUE, JOHN GARRETT -	3537	21st Nov. 1868	Improvements in the treatment and preparation of yarns or threads for weaving, sewing or other purposes, and in the machinery employed for this purpose. (Communicated by Régis Blanchard.)
TONGUE, WILLIAM - - -	411	6th Feb. 1868	Machinery for straightening and preparing fibrous materials for combing or spinning.
TONGUE, WILLIAM - - -	2007	22nd June 1868	Machinery for preparing fibrous materials for combing and spinning.
TONGUE, WILLIAM THOMAS -	53	7th Jan. 1868	Lamps for burning paraffine and other hydrocarbon oils.
TONKIN, WALTER WILLIAM -	3241	23rd Oct. 1868	Valves of engines or pumps.
TOOTH, ROBERT - - -	796	7th March 1868	Improvements in the evaporation of liquids and in apparatus to be employed therein.
TOOTH, WILLIAM HENRY -	2630	24th Aug. 1868	Improvements in the manufacture of bricks, tiles and other articles made from plastic or silicious materials, and in the machinery or apparatus employed for moulding and pressing the same, part of which improvements are also applicable for compressing peat or other substances, for the manufacture of artificial fuel.



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## ALPHABETICAL INDEX OF PATENTERS

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TORBITT, JAMES - - -	2941	25th Sept. 1868	Treatment, preservation and utilization of the potatoes.
TORSTRICK, HENRY - - -	1070	28th March 1868	Filters. (Patented by William Robert Lake.)
TOSELLI, GUILLAUME - - -	816	9th March 1868	Means and apparatus employed for freezing liquids. (Patented by Alexander Melville Clark.)
TOSELLI, JEAN BAPTISTE - - -	2357	27th July 1868	Improvements in the manufacture of artificial ice and in apparatus for the same. (Patented by Alexander Melville Clark.)
TOTIN, AUGUSTE - - -	3177	17th Oct. 1868	An improved adhesive substance. (Patented by Edward Thomas Hughes.)
TOTIN, JULES - - -	3177	17th Oct. 1868	An improved adhesive substance. (Patented by Edward Thomas Hughes.)
TOVEY, SAMUEL - - -	1474	5th May 1868	Bobbin frames for carpet looms.
TOWLE, JOHN - - -	482	12th Feb. 1868	Arrangement of sewers and drains for the collection and distribution of sewage matters.
TOWNE, LAURISTON - - -	1315	22nd April 1868	Machinery for manufacturing small articles from sheet metal. (Patented by William Robert Lake.)
TOWNE, WILLIAM JOHNSON - - -	1814	22nd April 1868	An improved lubricating packing. (Patented by William Robert Lake.)
TOWNSEND, ELMER - - -	3365	5th Nov. 1868	Machinery for nailing or pegging soles to boots or shoes. (Patented by William Robert Lake.)
TOWNSEND, ROBERT - - -	922	18th March 1868	Breech-loading fire-arms.
TRAGHEIM, SAMUEL - - -	2791	10th Sept. 1868	An improved mode of and apparatus for cleansing fibrous materials.
TRAGHEIM, SAMUEL - - -	3104	9th Oct. 1868	An improved method of and apparatus for washing, dyeing, cooking and wholly or partially dissolving substances of vegetable, animal or mineral origin, and for evaporating and concentrating solutions of the same substances.
TRANter, WILLIAM - - -	285	28th Jan. 1868	Fire-arms and cartridges.
TRANter, WILLIAM - - -	3622	28th Nov. 1868	Improvements in breech-loading fire-arms and in lubricating bullets for the same.
TRAVIS, CHARLES - - -	2730	4th Sept. 1868	Certain improvements in condensers of carding-engines.
TRAVIS, JOHN - - -	2194	11th July 1868	Machinery and apparatus for clearing, smoothing, stretching and finishing yarn and thread.
TRAVIS, THOMAS - - -	141	16th Jan. 1868	Machinery for clearing and smoothing yarn and thread.
TRENAUNAY, ALEXANDRE - - -	3673	2nd Dec. 1868	Improvements in paving blocks or slabs of wood, and in the means of fixing the same. (Patented by Alexander Melville Clark.)
TREVERTON, HENDER - - -	986	23rd March 1868	Frames or holders for lamp shades or glasses.
TRICHET, PHILIPPE - - -	3094	9th Oct. 1868	Pumps. (Patented by Henri Adrien Bonneville.)
TRINCHIERI, CORRADO - - -	2347	25th July 1868	Improvements in the means of steering steam vessels and in apparatus for the same. (Patented by Alexander Melville Clark.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TROQUIER, CASIMIR - -	2677	29th Aug. 1868	An improved machine for agglomerating coal or other combustible dust in any shapes, particularly into spheroidal and ellipsoidal forms, and permitting the simultaneous manufacture of balls or cakes of various sizes. (Patented by William Edward Gedge.)
TROTMAN, THOMAS - -	684	28th Feb. 1868	Construction of doubling-up or folding carriages and chairs.
TROTTIER, JULES - - -	129	15th Jan. 1868	The substitution of thin flexible and moveable blades or cutters of sheet steel, in lieu of rigid blades or cutters, in planing machines and machines cutting and shaping wood by means of rotating tools, and an arrangement which permits their use on tool-holders or cutter-stocks with curved, helicoidal, conical and other surfaces. (Patented by William Edward Gedge.)
TRUEMAN, RUSSELL WILLIAM [JOHN.]	941	19th March 1868	Machinery or apparatus for collecting and removing mud from the surface of roads and streets.
TRUEMAN, WILLIAM - -	2687	31st Aug. 1868	Steam-engines.
TUCKER, GEORGE - - -	420	7th Feb. 1868	Manufacture of rain-water pipes and certain other articles in cast iron.
TUCKER, HENRY CHARLES -	451	10th Feb. 1868	Apparatus for shearing and clipping sheep and other animals.
TUCKER, HIRAM - - -	3088	5th Oct. 1868	An improved extension chandelier. (Patented by William Robert Lake.)
TUCKER, JOHN - - -	82	8th Jan. 1868	Dressing fabrics and yarns.
TUCKER, JOHN - - -	83	8th Jan. 1868	Manufacture of paper.
TUCKER, SAMUEL BLATCHFORD	478	12th Feb. 1868	Cartridge-boxes or holders. (Communicated by John Webster Cochran.)
TUCKER, SAMUEL BLATCHFORD	2758	7th Sept. 1868	Rotary engines. (Communicated by George Whitcher.)
TUDOR, FREDERIC - - -	808	9th March 1868	Screw bolts and nuts for securing fish plates and other objects. (Patented by Charles Denton Abel.)
TUER, ANDREW WHITE - -	3125	12th Oct. 1868	Manufacture of show-boards, tablets or cases containing representations, announcements, illustrations or devices, for advertising and other purposes.
TUER, JOHN - - -	3853	5th Nov. 1868	Certain improvements in looms for weaving.
TURNBULL, CHARLES EDWARD	1145	4th April 1868	Improvements in paper binders or eyelets, and in means or apparatus for fixing together papers and other articles by means of such and other paper binders or eyelets.
TURNBULL, HENRY CHARLES [MONTAGU.]	3937	24th Dec. 1868	Apparatus or means for working punkahs or fans.
TURNBULL, HENRY JOHN -	2825	14th Sept. 1868	Preserving and keeping clean the bottoms of iron ships and also iron submerged, and iron structures exposed to the action of the atmosphere or water.
TURNBULL, JAMES - - -	1770	29th May 1868	Improvements in connecting and disconnecting carriages and wagons on railways, and in the apparatus connected therewith.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TURNBULL, THOMAS SCOTT -	3334	2nd Nov. 1868	An improvement or improvements in garments for saving life in case of immersion at sea or otherwise.
TURNER, ARCHIBALD - -	650	26th Feb. 1868	A new and improved washing-machine. (Patented by William Edward Newton.)
TURNER, ARCHIBALD - -	3466	14th Nov. 1868	Manufacture of elastic fabrics.
TURNER, CHARLES - - -	2811	12th Sept. 1868	Certain improvements in furnaces.
TURNER, EDWARD - - -	2814	12th Sept. 1868	Packing for pistons, piston rods, and other parts of machinery requiring to be similarly packed.
TURNER, EDWARD - - -	3636	28th Nov. 1868	Improvements in means or apparatus for communicating between the passengers, guard and driver of a railway train, and for signalling the speed at which a train is travelling.
TURNER, GEORGE MOSCRIPT -	650	26th Feb. 1868	A new and improved washing-machine. (Patented by William Edward Newton.)
TURNER, HENRY - - -	1903	11th June 1868	Construction of privies and ashpits.
TURNER, JAMES - - -	650	26th Feb. 1868	A new and improved washing-machine. (Patented by William Edward Newton.)
TURNER, MALCOLM CLARKE -	650	26th Feb. 1868	A new and improved washing-machine. (Patented by William Edward Newton.)
TURNER, MALCOM CLARK -	3596	25th Nov. 1868	Improvements in sad-irons and in the means for heating the same. (Patented by William Robert Lake.)
TURNER, RICHARD - - -	1789	30th May 1868	Manufacture of umbrellas.
TURNER, ROBERT - - -	650	26th Feb. 1868	A new and improved washing-machine. (Patented by William Edward Newton.)
TURNER, ROBERT - - -	3596	25th Nov. 1868	Improvements in sad-irons and in the means for heating the same. (Patented by William Robert Lake.)
TURNER, THOMAS CLARKE -	650	26th Feb. 1868	A new and improved washing-machine. (Patented by William Edward Newton.)
TURNER, WILLIAM - - -	124	14th Jan. 1868	An improvement in the construction or ornamentation of tape measure cases.
TURNER, WILLIAM - - -	2235	15th July 1868	Certain improvements in buckets to be employed in air pumps and other pumps.
TURRELL, GEORGE BENEDICT -	1965	17th June 1868	Coolers for beer and other liquids.
TWIGG, GEORGE - - -	956	20th March 1868	Manufacture of corkscrews.
TWIGG, ROBERT HARKNESS -	1989	19th June 1868	Machinery for boring or working in rock, stone or earth.
TWIGG, ROBERT HARKNESS -	3811	15th Dec. 1868	Improved means or apparatus to be employed in diving or subaqueous operations. (Patented by Clinton Edgcombe Brooman.)
TYBUR, VICTORIN - - -	714	3rd March 1868	A mineral paper-hanging intended to preserve apartments from dampness. (Patented by William Edward Gedge.)
TYLER, JOHN, junr. - - -	3083	8th Oct. 1868	Paper boats. (Patented by George Davies.)
TYLER, PHILOS BLAKE - -	3406	10th Nov. 1868	Splices for connecting the ends of rails on railways.
TYRODE, EMILE ADOLPHE -	2332	24th July 1868	Method of and apparatus for feeding steam-boilers. (Patented by William Edward Gedge.)

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TYSON, CHARLES SHOEMAKER	1083	30th March 1868	Improved mechanism for taking up the recoil of heavy ordnance.
TYSON, JAMES - - -	2070	27th June 1868	Machinery used in the manufacture of bobbins for thread or for similar purposes.

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UMBACH, ANTHONY - -	1911	11th June 1868	Improvements in sewing-machines and for certain parts of the same, which said parts are also applicable to other sewing-machines now in use.
UMFRID, CHARLES - - -	2575	18th Aug. 1868	Mills for grinding. (Patented by John Garrett Tongue.)
UMPHERSTON, WILLIAM -	1993	20th June 1868	Improvements in steam-engines for obtaining an almost uniform speed, by means of connections between the governor and an auxiliary cut off valve.
UNDERWOOD, NATHANIEL [CLAYTON.]	2032	24th June 1868	Carding-engines.
UNGER, MARCUS - - -	3209	20th Oct. 1868	Holders for glass and other globes or shades for gaseliers, chandeliers and other analogous purposes.
UNSWORTH, WILLIAM - -	1905	11th June 1868	An improved sail-brake for use on railways.
UNWIN, GEORGE - - -	3002	30th Sept. 1868	Apparatus for recapping cartridge cases for breech-loading firearms.
URE, JAMES MILLAR - -	913	18th March 1868	Improved apparatus for lifting the driving wheels of a locomotive off the rails, when the locomotive is either running or stationary.
USHER, ALFRED AUSTIN -	713	3rd March 1868	Respirators.
UTLEY, MAURICE HOWELL -	3691	4th Dec. 1868	A new mode of and apparatus for treating diseases. (Patented by John Henry Johnson.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
V.			
VACHEROT, ISIDORE ALEX- [ANDRE.]	3183	15th Oct. 1868	Improvements in the construction of buildings and in beams or girders employed therein.
VAGLICA, JOSEPH - - -	3571	17th Aug. 1868	Electro-magnets.
VALENTIN, WILLIAM GEORGE	3842	17th Dec. 1868	Improvements in the manufacture of iron and steel and in the apparatus employed therein.
VALENTIN, WILLIAM GEORGE	3843	17th Dec. 1868	Improvements in the generation or production of combustible gases and in the apparatus employed therein.
VALLÉE, JULES - - -	24	3rd Jan. 1868	A new or improved mode and apparatus for eliminating a portion of the azote in furnaces and fire-places, and for utilizing the oxygen and hydrogen of water as facilitators of combustion, and as fuel or as reducers, and in some cases as decarburators. (Patented by César Long.)
VAN DER MADE, JOHANNES [MARINUS.]	1166	7th April 1868	Apparatus for the consumption of smoke. (Patented by Henry James Dismars.)
VAN DER SMISSEN, LOUIS -	1743	27th May 1868	Certain improvements in the permanent way of railways. (Patented by Henri Adrien Bonneville.)
VAN DER WEYDE, M. MICHEL	1237	15th April 1868	Certain improvements in the arrangement and construction of submerged or sub-aqueous lamps, and in the fluid used in and adapted to such lamps. (Patented by George Glover.)
VAN DYK, PEETERS - -	3399	9th Nov. 1868	Man engines for raising water and lowering and raising men. (Patented by William Morgan-Brown.)
VAN HECKE, ENGLEBERT [THÉOPHILE.]	3290	27th Oct. 1868	Locomotive engines.
VAN HECKE, ENGLEBERT [THÉOPHILE.]	3592	25th Nov. 1868	Steam-boilers.
VAN SCHEPDAEL, EDMOND, the [younger.]	1320	22nd April 1868	Construction of "concaves" or breasting for the beating drums of thrashing machines. (Patented by Hunter Henry Murdoch.)
VAN WINKLE, ABRAHAM -	353	1st Feb. 1868	Improved apparatus for manufacturing and storing aerated waters, and for transferring these and other liquids from one vessel to another. (Partly communicated by Gustavus Davis Dows.)
VANDEWIELE, AMAND - -	459	11th Feb. 1868	Arrangement and construction of fire-places. (Patented by Charles Verkalst and Louis Verkalst.)
VANNER, HENRY THORNTON -	3900	21st Dec. 1868	Currying and dressing leather. (Communicated by Thomas Saunby.)
VANSITTART, HENRIETTA -	2877	18th Sept. 1868	Construction of screw propellers.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
VAQUEZ-FESSART, FRANCOIS [ERNEST.	3726	7th Dec. 1868	Improvements in winders for winding silk, cotton, jute and other threads, twist and fine wire, and in the mode of arranging such articles for the purpose of retailing the same. (Patented by Alexander Melville Clark.)
VARLEY, CROMWELL FLEET- [WOOD.	2683	29th Aug. 1868	Electric telegraphs.
VARLEY, JAMES - - -	3093	9th Oct. 1868	Improved machinery for treating waste silk and other fibres.
VARLEY, SAM WARBURTON -	3093	9th Oct. 1868	Improved machinery for treating waste silk and other fibres.
VARLEY, SAMUEL ALFRED -	315	29th Jan. 1868	Improvements in electrical train intercommunication, parts of which invention are applicable to electro-magnetic and other electrical apparatus.
VARLEY, SAMUEL ALFRED -	2369	28th July 1868	Improvements in train intercommunication, parts of which invention are applicable to electro-magnetic and electric telegraph apparatus.
VARLEY, SAMUEL ALFRED -	3329	31st Oct. 1868	Generating static electricity.
VAUGEOIS, JEAN FRANÇOIS -	2693	31st Aug. 1868	An improved apparatus for warding off leaves and other matters likely to clog the working of turbines. (Patented by William Edward Gedge.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1230	14th April 1868	Improvements in the manufacture of ceramic tesserae, and in the employment thereof for mural and other decorative purposes. (Communicated by Felix Mattei.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1370	27th April 1868	Improvements in telegraphy, and in the construction and arrangement of apparatus for communicating signals and intelligence. (Communicated by Lancelot Hope Everitt.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1630	19th May 1868	Preparation of anhydrous chlorides by means of sulphides or their elements. (Communicated by Paul Curie.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1631	19th May 1868	Construction of pipes for smoking. (Communicated by Charles James Irwin Grant, Baron de Longueuil.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1801	2nd June 1868	Apparatus for preventing incrustation in steam-boilers. (Communicated by Robert Breckenridge Baker and Charles James Adolphus Dick.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	3863	18th Dec. 1868	Manufacture of rosin oil. (Communicated by Paul Curie.)
VAUGHAN, THOMAS - - -	3420	11th Nov. 1868	Improvements in screw bolts and in the means for securing the nuts thereon.
VAVASSEUR, JOSIAH - - -	3335	2nd Nov. 1868	Apparatus for discharging ordnance.
VEAZIE, JOSEPH A. - - -	1728	26th May 1868	An improved process and composition for removing ink and colours from paper, and dirt from rags and other paper stock. (Patented by Alexander Septimus Macrae.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
VEILLON, AUGUSTE - -	80	8th Jan. 1868	Machinery for preparing to be spun, silk, china grass and other similar fibrous substances. (Patented by Thomas Greenwood.)
VEILLON, AUGUSTE - -	1761	28th May 1868	Machinery for assorting the fibres of dressed silk. (Patented by Thomas Greenwood.)
VEILLON, CHARLES AUGUSTE	807	9th March 1868	Machinery for carding, combing and straightening the fibres of cotton and other fibrous substances. (Patented by Henry Bernoulli Barlow.)
VEITH, FERDINAND -	2153	7th July 1868	Treatment of straps or bands for driving machinery. (Communicated by Conrad Bek and Heinrich Bek.)
VELUT, FRANÇOIS - - -	2777	9th Sept. 1868	Metallic spring packings. (Patented by Alexander Melville Clark.)
VENTOUILAC, JEAN - -	2978	29th Sept. 1868	Machinery or apparatus applicable for raising and lowering weights, hauling and other purposes. (Patented by Alexander Melville Clark.)
VENTOUILAC, LOUIS - -	2978	29th Sept. 1868	Machinery or apparatus applicable for raising and lowering weights, hauling and other purposes. (Patented by Alexander Melville Clark.)
VÉREL, WILLIAM ARISTIDES	3822	16th Dec. 1868	Improvements relating to the precipitation of copper and other metals from solutions by iron, and to their extraction from slag or scoria.
VERHULST, CHARLES - -	459	11th Feb. 1868	Arrangement and construction of fire-places. (Communicated by Amand Vandewiele.)
VERHULST, LOUIS - - -	459	11th Feb. 1868	Arrangement and construction of fire-places. (Communicated by Amand Vandewiele.)
VERO, CHARLES - - -	1547	12th May 1868	Manufacture of hats or coverings for the head.
VERO, CHARLES - - -	2907	21st Sept. 1868	Manufacture of hats and coverings for the head.
VERO, JOSEPH - - -	826	10th March 1868	Machinery or apparatus for the manufacture of hats.
VERSTRAET, LOUIS - -	1202	9th April 1868	Improvements in the means of and apparatus for storing and burning petroleum and other inflammable oils, for heating steam-boilers and other purposes.
VETTE, BERTHA - - -	16	1st Jan. 1868	Manufacture of "cross-overs," scarves and other articles of apparel, known as frame and knitted woollen goods.
VEVERS, JOSEPH - - -	618	25th Feb. 1868	Spinning and twisting machinery. (Communicated by Joseph Nussey.)
VIAL, LOUIS CHARLES EMILE	576	21st Feb. 1868	Manufacture of gas for lighting and heating. (Patented by George Davies.)
VIAL, LOUIS CHARLES EMILE	747	4th March 1868	Manufacture of gas for lighting and heating. (Patented by George Davies.)
VICARS, THOMAS - - -	517	17th Feb. 1868	An improved tobacco box and tobacco cutting machine combined.
VICARS, THOMAS, the elder -	3166	16th Oct. 1868	Self-feeding smokeless furnaces.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
VICARS, THOMAS, the younger-	3166	16th Oct. 1868	Self-feeding smokeless furnaces.
VICKERS, ALBERT - - -	1450	4th May 1868	An improved mode of locking the nuts of screw bolts. (Communicated by William Mullins.)
VICKERS, EDWARD - - -	2829	15th Sept. 1868	Manufacture of hats and caps and other coverings for the head.
VIDIE, JAMES - - -	1747	27th May 1868	An improved process for the ornamentation of glass, earthenware and other similar materials.
VIGLINO, JAQUES - - -	1691	22nd May 1868	Rotary steam-engines. (Patented by Alexander Melville Clark.)
VIGNIER, EVARISTE - - -	963	23rd March 1868	Improvements in distilling and rectifying spirits and in apparatus employed therein.
VILLAMIL, PHILIP MARTIN -	903	17th March 1868	Improved apparatus to facilitate the ascending of gradients by locomotive engines.
VILLEPOIX, GUSTAVE DE -	533	18th Feb. 1868	An improved vegetable extract for culinary purposes. (Patented by Alexander Melville Clark.)
VINCENT, LUCIEN - - -	1592	15th May 1868	Improvements in frames or holders for containing photographs, miniatures, hairwork pictures or engravings and other like articles, and in apparatus or means employed in their manufacture. (Patented by John Henry Johnson.)
VINE, EDWARD CHARLES -	3212	20th Oct. 1868	Improvements in fastenings for stays, corsets and bodices, which improvements are also applicable to other articles of wearing-apparel.
VIOLLET, MONSIEUR HENRY -	756	5th March 1868	Covers or capsules for jars, pots and other vessels. (Patented by Hector Auguste Dufrené.)
VION, ANAIS - - - -	2492	8th Aug. 1868	Blind furniture. (Patented by Bristow Hunt.)
VITÉ, FRANCOIS - - - -	1576	14th May 1868	A new or improved album or case for exhibiting a series of photographic or other pictures, designs or drawings. (Patented by Otto König.)
VIVET, ELIE - - - -	1930	12th June 1868	An improved material suitable for making steam, water and gas tight joints, and for similar uses.
VIVEZ, JOSEPH - - - -	91	10th Jan. 1868	Construction of lamps for burning volatile hydrocarbons and other mineral essences or compounds.
VOGL, DAVID - - - -	3597	25th Nov. 1868	An improvement in the means of fastening scarfs, neckties and cravats. (Communicated by Albert Schmidt.)
VOIGT, GEORGE - - - -	3201	20th Oct. 1868	Certain improvements in railway breaks.
VOITURET, JULES CÉSAR -	3895	21st Dec. 1868	An improved construction of cock or tap. (Patented by William Edward Gedge.)
VON DER POPPENBURG, [JOHANN.	1950	15th June 1868	Breech-loading fire-arms.
VON ESCHLIVIES - - - -	3113	10th Oct. 1868	Apparatus for separating and cleaning sharps or middlings, groats of wheat and other partially ground grain. (Patented by Robert Tod.)



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
VON HARTMANN, CHARLES -	1687	22nd May 1868	Means and apparatus for drawing cop and other threads through shuttle holes and eyes. (Patented by Charles Denton Abel.)
VON MARTIN, FRIEDERICH -	2305	22nd July 1868	Breech-loading fire-arms. (Patented by Clinton Edgcumbe Broome.)
VON OPPEN, FREDERIC AUGUST [KUNOW WALDEMAR.	3981	31st Dec. 1868	Improvements in revolving breech-loading fire-arms and in cartridges for the same, and in devices attached to the said fire-arms for charging the cartridges. (Communicated by the Colt's Patent Fire-arms Manufacturing Company (Incorporated).)
VON SCHMIDSFELDEN, MAXI- [MILIAN SCHMID.	1463	5th May 1868	Axle-boxes for the rolling stock of railways. (Patented by Charles Denton Abel.)
VON STUMMER-TRAUNFELS, [JOSEF RITTER.	96	10th Jan. 1868	Manufacture of artificial fuel. (Patented by John Martin Rowan.)
VOSS, CHRISTIAN JOHANN HEINRICH CARL GEORGE AUGUSTE.	2822	14th Sept. 1868	Spring pendulums for chronometers and clocks. (Patented by Matthew Augustus Soal.)
VOSS, FRIEDRICH WILHELM -	474	12th Feb. 1868	Portable weighing apparatus.
VOUILLON, FRANÇOIS - -	3349	4th Nov. 1868	Improvements in the manufacture of furred threads and furred fabrics, and in the machinery or apparatus connected therewith. (Patented by Edward Thomas Hughes.)
VOWINKEL, CHARLES JOSEPH	3532	20th Nov. 1868	An improved mode of and means for operating reciprocating saws. (Patented by William Robert Lake.)

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WADE, LEVI CLIFFORD - -	3649	30th Nov. 1868	Apparatus for receiving and delivering mail bags and packages on railways. (Patented by Alfred Vincent Newton.)
WADE, ROBERT - - -	1003	24th March 1868	Construction of pocket knives. (Patented by Alfred Vincent Newton.)
WADSWORTH, JAMES - -	1852	5th June 1868	A new fabric or composition suitable for soles and heels of boots and shoes and for other purposes.
WADSWORTH, JAMES - -	2976	29th Sept. 1868	Improved apparatus for economising fuel and utilizing the heat produced in fire-places or stoves for warming and ventilating, and for other purposes.
WAENZEL, FRANZ - - -	1870	6th June 1868	Central-fire cartridges.
WAHL, CHRISTIAN - - -	2368	28th July 1868	Improvements in glue and in the mode of and apparatus for manufacturing the same, the said improvements being also applicable to the manufacture of gelatine and other material. (Patented by William Robert Lake.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WAIDE, FRANCIS WILLIAM -	3105	9th Oct. 1868	Manufacture of cast-iron cisterns, lutes and covers.
WAILES, GEORGE - - -	926	18th March 1868	Manufacture of safes or strong boxes.
WAITE, WILLIAM PEARSON -	1269	18th April 1868	An improved means or apparatus for lubricating the spindles and other parts of machinery used for spinning or twisting wool, cotton, mohair, alpaca or other fibrous substances.
WALDENSTRÖM, ERIC HUGO -	2146	6th July 1868	An improved arrangement of mechanism to be employed for manufacturing metallic rivets or articles of a similar description.
WALDO, CHARLES FORSTER -	2300	22nd July 1868	A new method of and new apparatus for raising, moving, transferring and discharging water or other fluids. (Communicated by Charles Johansson.)
WALENN, WILLIAM HENRY -	3930	24th Dec. 1868	Electric deposition of copper and brass.
WALKER, ANDREW BARCLAY -	1082	30th March 1868	Improvements in the application of hot blast or heated air for evaporating salt brine and other liquids, sugar or chemicals, also for heating gas and oil retorts, raising steam in boilers, boiling worts in breweries and distilleries, which improvements are also applicable for bleaching, tanning and baking, likewise improvements in apparatus used in some of the aforesaid applications.
WALKER, BENJAMIN - - -	2610	21st Aug. 1868	Machinery for rolling disc wheels and hoops or tyres.
WALKER, BENJAMIN - - -	3107	9th Oct. 1868	Machinery for reducing bulldog or other hard substances.
WALKER, BERNARD PEARD -	2156	7th July 1868	Effecting the junctions of driving bands.
WALKER, BERNARD PEARD -	3446	13th Nov. 1868	Improvements in forging or shaping metals and in the machinery or apparatus employed therein.
WALKER, CHARLES CLEMENT	658	27th Feb. 1868	Centre valves for gas purifiers and other apparatus.
WALKER, EDMUND - - -	916	18th March 1868	Capstans.
WALKER, EDWARD ROSS -	644	26th Feb. 1868	Transmitting motive-power to potters' machinery.
WALKER, FREDERICK WILLIAM	3939	24th Dec. 1868	Improvements in the manufacture of ornamental bricks, tiles, slabs and other like articles, and in the machinery or apparatus employed therein.
WALKER, HENRY - - -	2669	31st Aug. 1868	An improved method for papering and packing needles, pins and similar small articles, for sale.
WALKER, HENRY BURTON -	2524	12th Aug. 1868	Extracting burrs from wool.
WALKER, JACOB - - -	1106	1st April 1868	Flooring, sash and bench cramps.
WALKER, JAMES - - -	525	17th Feb. 1868	Manufacture of ornamental tiles, slabs, bricks and other articles.
WALKER, JAMES - - -	1084	30th March 1868	Apparatus for the manufacture of cast-iron pipes and similar articles.
WALKER, JAMES GRAHAM -	1491	6th May 1868	Improvements in separating tares and other impurities from grain and other seeds, and in the apparatus or means connected therewith. (Communicated by William Walker Gibson and Walter Berry.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WALKER, JAMES GRAHAM -	1492	6th May 1868	Improvements in dressing millstones and in the machinery or apparatus employed therefor.
WALKER, JAMES GRAHAM -	1587	14th May 1868	Improvements in dressing stone and in the machinery or apparatus employed therefor.
WALKER, JOEL EATON - -	3024	2nd Oct. 1868	Improvements applicable to ratchet and crank braces, and other tools or apparatus wherein centre points and pivots are required.
WALKER, JOHN - - -	336	31st Jan. 1868	Machinery for turning and cutting wood and other substances.
WALKER, JOHN CRAWFORD -	1970	17th June 1868	An improved baking powder to be employed in the treatment of flour in the manufacture of bread and other farinaceous food.
WALKER, JOHN CRAWFORD -	2757	7th Sept. 1868	Coppers or boilers for boiling or cleansing articles of clothing and other substances.
WALKER, JOHN CRAWFORD -	3846	17th Dec. 1868	The production of an acid powder and the use thereof, in combination with an alkaline carbonate, in the treatment of flour employed in the manufacture of bread and other farinaceous food.
WALKER, JOHN SCARISBRICK	3884	21st Dec. 1868	Machinery or apparatus for undermining. "holeing" and cutting coal and other mineral.
WALKER, MOWBRAY - -	70	8th Jan. 1868	Improvements in breech-loading small-arms, including pistols, and in the cartridges to be used therewith.
WALKER, SAMUEL - - -	1794	1st June 1868	Watches or other pocket time-keepers.
WALKER, THOMAS - - -	426	8th Feb. 1868	Construction of sewers and drain pipes or tubes.
WALKER, THOMAS - - -	838	11th March 1868	Improvements in the construction of electric telegraph cables and lines, and in the mode of and apparatus for or connected with the transmission of electric currents.
WALKER, THOMAS - - -	3239	23rd Oct. 1868	An improved lever buckle or fastening for scarfs, neckties, braces, belts, garters, and other articles of wearing-apparel.
WALKER, THOMAS WEST -	387	5th Feb. 1868	Improvements in the manufacture of bricks, tiles, slabs and other like articles, and in the materials and machinery or apparatus employed therein.
WALKER, WILLIAM - - -	1472	5th May 1868	Apparatus employed for expressing oils from seeds or other substances.
WALKER, WILLIAM - - -	1586	14th May 1868	Improvements in the processes of cutting and dressing millstones, and in apparatus to be employed for such purpose.
WALKER, WILLIAM - - -	2002	20th June 1868	Valve gear for steam and other motive engines.
WALKER, WILLIAM GEORGE -	3024	2nd Oct. 1868	Improvements applicable to ratchet and crank braces, and other tools or apparatus wherein centre points and pivots are required.
WALKER, WILLIAM THOMAS -	658	27th Feb. 1868	Centre valves for gas purifiers and other apparatus.
WALLACE, JAMES - - -	3289	27th Oct. 1868	Dental appliances.
WALLACE, JOHN - - -	1125	3rd April 1868	Apparatus for digging potatoes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WALLIS, JOHN - - -	629	10th March 1868	An improved mode of and apparatus for dressing millstones.
WALLIS, WILLIAM - - -	370	3rd Feb. 1868	Stands or supports for lasts used in the manufacture of boots and shoes.
WALLWORK, HENRY - - -	3314	29th Oct. 1868	Taps or valves.
WALMSLEY, HENRY - - -	581	21st Feb. 1868	A self acting registering apparatus to register the number of persons entering into and on omnibuses or similar vehicles plying for hire.
WALMSLEY, JAMES - - -	1121	3rd April 1868	Certain improvements in apparatus to be employed for warping and beaming yarns or threads.
WALMSLEY, JOHN - - -	2851	16th Sept. 1868	Means for establishing a communication between the guards and the "drivers" of railway trains, and between the guards and the passengers in the said trains.
WALMSLEY, THOMAS - - -	1121	3rd April 1868	Certain improvements in apparatus to be employed for warping and beaming yarns or threads.
WALTER, FERDINAND - - -	272	25th Jan. 1868	An improved apparatus for heating, evaporating and decomposing water, oil and other substances. (Patented by Francis Wirth.)
WALTON, FREDERICK - - -	2489	8th Aug. 1868	Improvements in the treatment of resins or resinous gums, and in the application of the products obtained therefrom.
WALTON, FREDERICK - - -	3772	11th Dec. 1868	Construction of houses and other buildings or structures.
WANKLYN, JAMES ALFRED - - -	1263	17th April 1868	Preparation and use of anæsthetics.
WANNER, JAMES FRANCIS - - -	2938	24th Sept. 1868	Machinery for embroidering or ornamenting fabrics. (Communicated by Joseph Hugand.)
WANOSTROCHT, VINCENT - - -	2754	7th Sept. 1868	Improvements in the construction of gunpowder mills, and in machinery used in the manufacture of gunpowder.
WAPPENSTEIN, RUDOLPH - - -	1958	16th June 1868	An improved system and apparatus for registering the numbers of passengers travelling in or on omnibuses and other conveyances.
WAPPENSTEIN, RUDOLPH - - -	3927	16th Dec. 1868	An improved system and apparatus for registering the numbers of passengers travelling in or on omnibuses and other conveyances.
WARBURTON, JAMES, junior - - -	1011	25th March 1868	Steam-engines.
WARBURTON, THOMAS, the younger.	3665	2nd Dec. 1868	Piecing cardings of cotton or wool as delivered from the carding-engine.
WARD, FREDERICK OLDFIELD	3504	18th Nov. 1868	Improvements in operations and apparatus for drying down alkaline solutions of extractive matter obtained in preparing vegetable fibrous materials for use in the manufacture of paper, and in recovering alkali therefrom for re-employment.
WARD, GEORGE MATTHEW - - -	2128	3rd July 1868	Working of locomotive engines.
WARD, JOHN FROTHINGHAM - - -	1816	3rd June 1868	Pipe joints. (Patented by John Henry Johnson.)
WARD, JOSEPH - - - - -	2128	3rd July 1868	Working of locomotive engines.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
V.			
VACHEROT, ISIDORE ALEX- [ANDRE.]	3163	15th Oct. 1868	Improvements in the construction of buildings and in beams or girders employed therein.
VAGLICA, JOSEPH - - -	3571	17th Aug. 1868	Electro-magnets.
VALENTIN, WILLIAM GEORGE	3842	17th Dec. 1868	Improvements in the manufacture of iron and steel and in the apparatus employed therein.
VALENTIN, WILLIAM GEORGE	3843	17th Dec. 1868	Improvements in the generation or production of combustible gases and in the apparatus employed therein.
VALLÉE, JULES - - -	24	3rd Jan. 1868	A new or improved mode and apparatus for eliminating a portion of the azote in furnaces and fire-places, and for utilizing the oxygen and hydrogen of water as facilitators of combustion, and as fuel or as reducers, and in some cases as decarburators. (Patented by César Long.)
VAN DER MADE, JOHANNES [MARINUS.]	1166	7th April 1868	Apparatus for the consumption of smoke. (Patented by Henry James Ditmars.)
VAN DER SMISSEN, LOUIS -	1743	27th May 1868	Certain improvements in the permanent way of railways. (Patented by Henri Adrien Bonneville.)
VAN DER WEYDE, M. MICHEL	1237	15th April 1868	Certain improvements in the arrangement and construction of submerged or sub-aqueous lamps, and in the fluid used in and adapted to such lamps. (Patented by George Glover.)
VAN DYK, PEETERS - - -	3399	9th Nov. 1868	Man engines for raising water and lowering and raising men. (Patented by William Morgan-Brown.)
VAN HECKE, ENGLEBERT [THÉOPHILE.]	3290	27th Oct. 1868	Locomotive engines.
VAN HECKE, ENGLEBERT [THÉOPHILE.]	3592	25th Nov. 1868	Steam-boilers.
VAN SCHEPDAEL, EDMOND, the [younger.]	1320	22nd April 1868	Construction of "concaves" or breasting for the beating drums of thrashing machines. (Patented by Hunter Henry Murdoch.)
VAN WINKLE, ABRAHAM -	353	1st Feb. 1868	Improved apparatus for manufacturing and storing aerated waters, and for transferring these and other liquids from one vessel to another. (Partly communicated by Gustavus Davis Dows.)
VANDEWIELE, AMAND - -	459	11th Feb. 1868	Arrangement and construction of fire-places. (Patented by Charles Verhulst and Louis Verhulst.)
VANNER, HENRY THORNTON -	3900	21st Dec. 1868	Currying and dressing leather. (Communicated by Thomas Saunby.)
VANSITTART, HENRIETTA -	2877	18th Sept. 1868	Construction of screw propellers.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
VAQUEZ-FRESSART, FRANCOIS [ERNEST.	3726	7th Dec. 1868	Improvements in winders for winding silk, cotton, jute and other threads, twist and fine wire, and in the mode of arranging such articles for the purpose of retailing the same. (Patented by Alexander Melville Clark.)
VARLEY, CROMWELL FLEET- [WOOD.	2683	29th Aug. 1868	Electric telegraphs.
VARLEY, JAMES - - -	3093	9th Oct. 1868	Improved machinery for treating waste silk and other fibres.
VARLEY, SAM WARBURTON -	3093	9th Oct. 1868	Improved machinery for treating waste silk and other fibres.
VARLEY, SAMUEL ALFRED -	315	29th Jan. 1868	Improvements in electrical train intercommunication, parts of which invention are applicable to electro-magnetic and other electrical apparatus.
VARLEY, SAMUEL ALFRED -	2369	28th July 1868	Improvements in train intercommunication, parts of which invention are applicable to electro-magnetic and electric telegraph apparatus.
VARLEY, SAMUEL ALFRED -	3329	31st Oct. 1868	Generating static electricity.
VAUGEOIS, JEAN FRANÇOIS -	2693	31st Aug. 1868	An improved apparatus for warding off leaves and other matters likely to clog the working of turbines. (Patented by William Edward Gedge.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1230	14th April 1868	Improvements in the manufacture of ceramic tesserae, and in the employment thereof for mural and other decorative purposes. (Communicated by Felix Mattei.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1370	27th April 1868	Improvements in telegraphy, and in the construction and arrangement of apparatus for communicating signals and intelligence. (Communicated by Lancelot Hope Everitt.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1630	19th May 1868	Preparation of anhydrous chlorides by means of sulphides or their elements. (Communicated by Paul Curie.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1631	19th May 1868	Construction of pipes for smoking. (Communicated by Charles James Irwin Grant, Baron de Longueuil.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	1801	2nd June 1868	Apparatus for preventing incrustation in steam-boilers. (Communicated by Robert Breckenridge Baker and Charles James Adolphus Dick.)
VAUGHAN, EDWARD PRIME- [ROSE HOWARD.	3863	18th Dec. 1868	Manufacture of rosin oil. (Communicated by Paul Curie.)
VAUGHAN, THOMAS - - -	3420	11th Nov. 1868	Improvements in screw bolts and in the means for securing the nuts thereon.
VAVASSEUR, JOSIAH - - -	3335	2nd Nov. 1868	Apparatus for discharging ordnance.
VEAZIE, JOSEPH A. - - -	1728	26th May 1868	An improved process and composition for removing ink and colours from paper, and dirt from rags and other paper stock. (Patented by Alexander Septimus Macrae.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WATT, ALEXANDER - -	3801	15th Dec. 1868	Improvements in the manufacture of metallic rollers or cylinders for printing purposes, which improvements are also applicable to all metallic surfaces used for printing purposes.
WATTEU, EMILE - - -	1164	7th April 1868	Improvements in screw taps and in the mode of fixing the same.
WATTEU, EMILE - - -	3420	11th Nov. 1868	Improvements in screw bolts and in the means for securing the nuts thereon.
WATTS, HENRY - - -	2361	28th July 1868	Construction of rails for railways.
WATTS, JAMES WREN - -	605	24th Feb. 1868	Machinery for preparing vegetable fibre.
WATTS, WILLIAM - - -	1235	15th April 1868	Mangles.
WATTS, WILLIAM THOMAS -	2862	17th Sept. 1868	Annealing raised hollow vessels.
WATTS, WILLIAM THOMAS -	2939	24th Sept. 1868	Improvements in and applicable to hydraulic and other presses, parts of which improvements may be employed for or with other descriptions of machinery.
WAUGH, HENRY - - -	1389	28th April 1868	Apparatus for screening or separating grain, seed and other matters.
WAYGOOD, RICHARD - -	1523	9th May 1868	Stoves or apparatus for cooking.
WAYGOOD, RICHARD - -	3767	11th Dec. 1868	Improved arrangements or means connected with the ventilation of mines.
WEATHERDON, BALDWIN FUL- [FORD.]	1418	30th April 1868	A new or improved mode of soldering tin boxes, canisters or cases. (Communicated by Edouard Cormier.)
WEATHERILL, HENRY - -	3188	19th Oct. 1868	Certain improvements in the construction of carriage axles and axle boxes.
WEBB, FRANCIS WILLIAM -	3545	23rd Nov. 1868	Improvements in the construction of steam hammers and in apparatus employed therein.
WEBB, MATILDA - - -	1176	7th April 1868	Destroying the decaying principle in animal substances and articles of food and organic matter, by means of a railroad atmospheric process. (Patented by Patrick M'Mahon.)
WEBB, THOMAS GEORGE -	3518	19th Nov. 1868	Manufacture of tumblers, goblets, wine glasses and other vessels of glass.
WEBB, THOMAS GEORGE -	3618	27th Nov. 1868	Improvements in the manufacture of tumblers, goblets, wine glasses and other vessels or articles of glass, and in tools and instruments or apparatus to be used in such manufacture.
WEBB, THOMAS STAMMERS -	1205	11th April 1868	Improvements in the treatment and reduction of titaniferous iron ores for the manufacture of iron, and in the application of slag or cinder produced in such processes.
WEBSTER, DANIEL - - -	2261	18th July 1868	Certain improvements in the manufacture of gas and in apparatus connected therewith.
WEBSTER, JAMES - - -	2364	28th July 1868	Improvements in the manufacture of gas and vapour, and in applying such gas and vapour in manufacturing and refining iron and other metals, and in recovering certain products therefrom.
WEBSTER, JOHN - - -	384	4th Feb. 1868	An improvement in the means of preventing incrustation in steam-boilers and other vessels.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WEBSTER, WILLIAM - -	1532	11th May 1868	Head and waist rests for the use of photographers.
WEBSTER, WILLIAM SHAKE- [SPEAR.	1953	15th June 1868	Improvements in water-proofing paper and in the machinery or apparatus employed therein.
WEDEKIND, HERMANN - -	604	24th Feb. 1868	Improvements in the burning of bricks, lime, cement and other like substances, and in the kilns employed therein. (Partly communicated by Friedrich Hoffmann.)
WEDEKIND, HERMANN - -	943	19th March 1868	Improvements in the burning and drying of bricks, lime, cement and other like substances, and in the kilns employed therein. (Partly communicated by Friedrich Hoffmann.)
WEEKES, CHARLES - -	2284	20th July 1868	Improvements in the application of iron for building purposes, and in the means of connecting the same, particularly applicable to fortifications.
WEEMS, JOHN - - -	360	3rd Feb. 1868	Machinery, apparatus or means for heating and drying grain and other vegetable products, fabrics, paper, yarns, fibrous materials and other substances.
WEEMS, WILLIAM - - -	360	3rd Feb. 1868	Machinery, apparatus or means for heating and drying grain and other vegetable products, fabrics, paper, yarns, fibrous materials and other substances.
WEGELIN, GUSTAVE - -	2148	7th July 1868	Dyeing. (Patented by George Davies.)
WEILD, WILLIAM - - -	539	18th Feb. 1868	Improvements in the process of treating sewing threads, to prepare, starch, dress, polish and wind the same, and in some of the machinery to be employed therein.
WEIR, RANKIN - - -	1248	16th April 1868	Improvements in furnaces for burning oil.
WEIR, RANKIN - - -	1922	12th June 1868	Improvements in treating ores and in refining crude metals, in order to obtain steel, copper, tin and lead, and in apparatus therefor.
WEISGERBER, CHARLES LOUIS	3281	27th Oct. 1868	Manufacture and application of salt-stones or lumps of salt for consumption by cattle, sheep and other animals. (Patented by William Edward Gedge.)
WEISS, EMANUEL - - -	3016	1st Oct. 1868	An improved process for decorticating grain. (Patented by William Edward Newton.)
WELCH, GEORGE AUGUSTUS -	1354	24th April 1868	Apparatus for the preservation of life and property at sea.
WELCHMAN, HENRY - -	1328	23rd April 1868	An improved spring fastening for brooches and other similar dress fastenings.



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WELDON, WALTER - -	565	20th Feb. 1868	Improvements relating primarily to the manufacture of chlorine by means of regenerated oxides of manganese, but partly applicable also to other purposes, being improvements in the decomposition of chlorine residues, in the peroxidation of oxides of manganese recovered therefrom, in the treatment of a bye product of the decomposition of those residues, in the separation of sulphuric acid and other impurities from the hydrochloric acid employed, and in apparatus and arrangements for some of these purposes.
WELDON, WALTER - -	662	27th Feb. 1868	Regeneration from chlorine residues of oxides of manganese suitable for use again in the manufacture of chlorine, and capable of being applied also to other purposes.
WELLS, CHARLES HENRY -	1800	1st June 1868	A new and improved mode of impregnating wood with oleaginous and saline matters. <i>(Communicated by Charles Augustus Seely.)</i>
WELLS, GEORGE MILES -	3985	31st Dec. 1868	Wrenches. <i>(Communicated by William Baxter.)</i>
WELLS, RUFUS GIBBON -	267	25th Jan. 1868	Apparatus for producing optical illusions.
WENDEN, JOHN - - -	469	11th Feb. 1868	An improved process for ornamenting glass.
WENKHEIM, SIEMON - -	927	18th March 1868	A mode or method of combining a shirt and waistcoat or portions thereof, so as to be worn either as a waistcoat and shirt or as a shirt only.
WERDERMANN, RICHARD -	3198	20th Oct. 1868	Safety lamps for miners. <i>(Patented by Henri Adrien Bonneville.)</i>
WERTHEIM, JONAS - - -	1453	4th May 1868	Locketts. <i>(Communicated by Henry Geissel.)</i>
WESSELY, ZDENKO LEOPOLD	3236	23rd Oct. 1868	Breech-loading fire-arms.
WEST, DANIEL - - -	3032	3rd Oct. 1868	An improvement in presses for packing cotton, hemp, wool and other goods.
WEST, JOSEPH - - -	365	3rd Feb. 1868	An improved method of and composition for preventing the formation of scale in steam-boilers.
WEST, NOEL - - -	3644	30th Nov. 1868	Preservation from corrosion of rudder pins and gudgeons or braces, screw propeller shafts, the working parts of feathering paddle wheels, and the surfaces of iron and steel ships and other structures.
WEST, ROBERT GIBSON -	3644	30th Nov. 1868	Preservation from corrosion of rudder pins and gudgeons or braces, screw propeller shafts, the working parts of feathering paddle wheels, and the surfaces of iron and steel ships and other structures.
WESTON, JOHN HENRY - -	1094	31st March 1868	Means or apparatus for lighting and ventilating the interior of buildings, combining a decorative effect.
WESTON, THOMAS ALDRIDGE	1867	6th June 1868	Machinery or apparatus for raising and lowering, moving or transporting heavy bodies.
WESTRAY, JOHN - - -	762	5th March 1868	Machines for drilling and boring.
WESTWOOD, JOSEPH, junr. -	3214	20th Oct. 1868	Construction of socket joints for metal piles and columns.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WESTWOOD, WILLIAM HENRY	1902	10th June 1868	Improvements in gas holders, gas purifiers and other apparatus used in the manufacture and distribution of gas for illumination.
WETHERED, EDWIN ROBERT -	3575	24th Nov. 1868	Apparatus for signalling in railway trains.
WETHERILT, JAMES - - -	1349	24th April 1868	Improved apparatus for scoring or marking at billiards or other similar games.
WEYDE, M. MICHEL VAN DER	1237	15th April 1868	Certain improvements in the arrangement and construction of submerged or sub-aqueous lamps, and in the fluid used in and adapted to such lamps. (Patented by George Glover.)
WHALE, HENRY - - -	2304	22nd July 1868	Racket bats.
WHARRIE, JOHN - - -	311	29th Jan. 1868	Improvements in the manufacture of cast-iron pipes and similar articles, and in apparatus therefor.
WHARRIE, JOHN - - -	1084	30th March 1868	Apparatus for the manufacture of cast-iron pipes and similar articles.
WHEATLEY, JESSE - - -	585	21st Feb. 1868	An improved construction of chimney pot.
WHEATON, WILLIAM - - -	2136	4th July 1868	An improved process for the manufacture of salts of ammonia from ammoniacal gas liquor.
WHEATON, WILLIAM - - -	3484	16th Nov. 1868	An improved process for the manufacture of salts of ammonia from ammoniacal gas liquor.
WHEELER, CHARLES - - -	2902	21st Sept. 1868	Apparatus, taps or joints for turning on and cutting off the supply of liquids and fluids.
WHEELER, GEORGE PRINTY -	1651	20th May 1868	Manufacture of artificial fuel.
WHEELER, GEORGE PRINTY -	3511	19th Nov. 1868	Manufacture of artificial fuel.
WHILLOCK, THOMAS SMITH -	687	28th Feb. 1868	Fastenings for window sashes.
WHIPPLE, MILTON D. - - -	935	19th March 1868	Machinery for combing cotton and other fibres. (Patented by George Davies.)
WHISTON, ROBERT - - -	2237	16th July 1868	An improved safety window and window-sash lock fastener.
WHITAKER, RICHARD - - -	3887	21st Dec. 1868	Fastenings or locks applicable to locks, bolts, latches, sashes, shutters, bags and all other purposes where fastenings are or may be required.
WHITCHER, GEORGE - - -	2758	7th Sept. 1868	Rotary engines. (Patented by Samuel Blatchford Tucker.)
WHITE, EDWARD - - -	2601	20th Aug. 1868	Rotary engines. (Patented by Alfred Vincent Newton.)
WHITE, GEORGE - - -	2726	4th Sept. 1868	Apparatus for preventing incrustations from collecting on the sides, flues or tubes of steam or other boilers. (Communicated by Mr. Josef Popper.)
WHITE, GEORGE PRESTON -	3442	12th Nov. 1868	Construction of screw piles, posts and moorings.
WHITE, GEORGE PRESTON -	3744	8th Dec. 1868	Constructing the roadways, platforms or floors of bridges and other structures.
WHITE, JOHN TAHOURDIN -	407	6th Feb. 1868	Fire lighters.
WHITE, WILLIAM GEORGE -	3045	6th Oct. 1868	Manufacture of self-adjusting spanners.
WHITEHEAD, JAMES HEYWOOD	1197	9th April 1868	Apparatus for removing soot from the surfaces of heating tubes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WHITEHEAD, JAMES HEYWOOD	2147	6th July 1868	Improvements in numnahs or saddle pads and in numnah blankets.
WHITEHEAD, JOHN - -	2472	7th Aug. 1868	Dandy rollers used in the manufacture of paper.
WHITEHEAD, THOMAS - -	1960	16th June 1868	Machinery for combing wool, silk, flax, hair or other fibrous substances.
WHITEHILL, WILLIAM - -	1107	1st April 1868	Cartridges.
WHITEHOUSE, CORNELIUS - -	1935	13th June 1868	Boring bits and augers.
WHITEHOUSE, CORNELIUS - -	2014	22nd June 1868	Mill bills and picks for dressing millstones and for dressing stone for other purposes.
WHITEHOUSE, CORNELIUS - -	3191	19th Oct. 1868	Manufacture of augers, boring bits and other similar tools.
WHITEHOUSE, EDWARD ORANGE [WILDMAN.	3224	21st Oct. 1868	A new (or improved) mode of protecting insulated telegraph wires.
WHITEHOUSE, JOHN - -	1327	23rd April 1868	Manufacture of tailors' or "goose" irons.
WHITEHOUSE, THOMAS - -	1020	25th March 1868	Blast furnaces.
WHITELEY, JAMES - - -	177	18th Jan. 1868	Twining "jennies" or apparatus for twining or doubling cotton, silk, worsted and other fibrous substances.
WHITELEY, JOE BOOTH - -	661	27th Feb. 1868	Machinery for stretching and drying or finishing woven fabrics.
WHITELEY, JOE BOOTH - -	1648	20th May 1868	Machinery for stretching, drying and producing the "elastic finish" on woven fabrics.
WHITIN, JOHN - - -	3056	7th Oct. 1868	Flyers employed in twisting or spinning cotton and other fibrous substances. (Patented by John Henry Johnson.)
WHITMEE, JOSEPH - - -	2322	23rd July 1868	Dry gas regulators.
WHITTAKER, DAVID - - -	508	15th Feb. 1868	Improvements in healds or heddles and other parts of looms, and in machinery or apparatus connected therewith.
WHITTAKER, JAMES - - -	3963	30th Dec. 1868	Machinery for screwing and tapping.
WHITTAKER, JOHN WILLIAM [SON.	1683	21st May 1868	Carding-engines.
WHITTAKER, THOMAS - - -	776	6th March 1868	Certain improvements in the preparation of paper to be employed in the manufacture of waterproof paper.
WHITTAKER, THOMAS - - -	1308	22nd April 1868	Certain improvements in the manufacture of water or liquid-proof fabrics or surfaces.
WHITTAKER, WILLIAM [WALKER.	1326	23rd April 1868	Machinery employed in the manufacture of felt.
WHITTLE, WILLIAM - - -	725	3rd March 1868	Steam-engines and steam-boilers.
WHITWELL, THOMAS - - -	112	11th Jan. 1868	Furnaces.
WHITWORTH, CHARLES FREDERICK [DERICK.	2958	26th Sept. 1868	Improved apparatus for the increase of safety on inclines of railways or tramways.
WHITWORTH, JOHN - - -	84	8th Jan. 1868	Cutters for forming wood mouldings and for other like purposes. (Patented by William Robert Lake.)
WHITWORTH, WILLIAM - - -	84	8th Jan. 1868	Cutters for forming wood mouldings and for other like purposes. (Patented by William Robert Lake.)
WHITWORTH, WILLIAM - - -	1390	28th April 1868	Sewing-machines.
WHYTE, JOHN - - -	3310	29th Oct. 1868	Looms for weaving.
WHYTE, QUINTIN - - -	3310	29th Oct. 1868	Looms for weaving.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WIDMARK, HAROLD WILHELM	1272	18th April 1868	Governors applicable to steam and other engines.
WIEGAND, S. LLOYD - -	1365	25th April 1868	Steam generators and furnaces. (Patented by Alexander Clark.)
WIER, ARTHUR McNUTT -	1100	1st April 1868	Pneumatic apparatus employed in transmitting motive-power for signalling and indicating or for other purposes.
WIER, ARTHUR McNUTT -	2929	24th Sept. 1868	Pneumatic apparatus employed in transmitting motive-power for signalling and indicating or for other purposes.
WIER, MARSHALL ARTHUR -	1100	1st April 1868	Pneumatic apparatus employed in transmitting motive-power for signalling and indicating or for other purposes.
WIER, MARSHALL ARTHUR -	2929	24th Sept. 1868	Pneumatic apparatus employed in transmitting motive-power for signalling and indicating or for other purposes.
WIESMANN, WILHELM - -	2440	4th Aug. 1868	A new and improved process of preserving meat, and the apparatus connected therewith. (Patented by Henri Adrien Bonneville.)
WIGHAM, JOHN RICHARDSON -	3043	6th Oct. 1868	Improvements in illuminating lighthouses and in apparatus employed for that purpose, which apparatus is also applicable to the manufacture of illuminating gas generally.
WIGNER, GEORGE WILLIAM -	1954	15th June 1868	Deodorizing and purifying sewage and making manure therefrom.
WILBER, JOHN DODGE - -	394	5th Feb. 1868	Mowing and reaping machines. (Patented by William Edward Newton.)
WILBER, MARK DODGE - -	394	5th Feb. 1868	Mowing and reaping machines. (Patented by William Edward Newton.)
WILCOX, CHARLES POLLOCK -	2276	20th July 1868	An improved counting machine and numerical recorder.
WILCOX, JOHN H. - - -	3980	31st Dec. 1868	Machinery for untwisting and separating the fibres of hair ropes. (Patented by William Robert Lake.)
WILD, WILLIAM - - -	3580	25th Nov. 1868	An improved arrangement and adaptation of mechanism to the driving shafts of motive-power engines, to be employed for equalizing and regulating the speed of such shafts.
WILDE, ROBERT - - -	614	24th Feb. 1868	Improvements in steam-boilers and in feed-water apparatus for the same. (Patented by William Robert Lake.)
WILDE, ROBERT - - -	2327	24th July 1868	Teeth for machines for picking or separating cotton, wool and other fibres. (Patented by William Robert Lake.)
WILDE, ROBERT - - -	2346	25th July 1868	Improvements in steam-boilers, and in the means for maintaining the proper water level in the same. (Patented by William Robert Lake.)
WILDER, HENRY BEAUFOY -	691	29th Feb. 1868	Magnetic electric telegraphic apparatus for signs, letters or sentences, with bell and self-acting mechanical switch.
WILEY, WILLIAM EDWARD -	2900	21st Sept. 1868	Construction of cartridges for breech-loading fire-arms.
WILHELMS, AUGUSTUS - -	1166	7th April 1868	Apparatus for the consumption of smoke. (Patented by Henry James Ditmars.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WILKERSON, SAMUEL - -	1868	6th June 1868	Machinery or apparatus for scattering or spreading manure.
WILKIN, MARMADUKE - -	2424	1st Aug. 1868	Improvements in steam-boilers and furnaces, in part applicable to surface condensers of marine engines.
WILKIN, MARMADUKE - -	3505	18th Nov. 1868	An improved lamp for lighting mines.
WILKINS, WILLIAM - -	140	15th Jan. 1868	Improvements in the manufacture of knitted reversible gaiters and bootakins for children, and in mitts and armlets for ladies, gentlemen or children.
WILKINSON, GEORGE EDWARD	2961	26th Sept. 1868	Improvements in the manufacture of paste and card board and in apparatus employed therein, which apparatus is also applicable to other purposes.
WILKINSON, JOHN, the younger	1476	5th May 1868	Improved machinery for printing carpets.
WILKINSON, JOHN, the younger	2690	31st Aug. 1868	Improved machinery for printing carpets.
WILKINSON, JOHN, the younger	3889	21st Dec. 1868	An improved manufacture of saddle cloths and numnahs or cavalry blankets.
WILKINSON, WILLIAM HENRY	521	17th Feb. 1868	An improved system of type composition and mode of constructing and arranging the type cases for the same.
WILKINSON, WILLIAM HENRY	1525	9th May 1868	An improved method of combining or uniting types and constructing cases to contain the same, for the purposes of type composition.
WILLANS, JACOB GEOGHEGAN	481	12th Feb. 1868	Manufacture of iron and steel.
WILLANS, JACOB GEOGHEGAN	3050	6th Oct. 1868	Manufacture of iron and steel.
WILLE, ALPHONSE ABRAHAM	2289	21st July 1868	Bleaching or extracting the colour from feathers.
WILLETTE, SAMUEL - -	1873	8th June 1868	Double-barrel breech-loading fire-arms.
WILLIAMS, C. - - -	1987	19th June 1868	Apparatus for aerial navigation. (Patented by William Edward Newton.)
WILLIAMS, CLARENDON - -	296	28th Jan. 1868	An improved pavement. (Patented by William Robert Lake.)
WILLIAMS, DAVID - - -	3559	23rd Nov. 1868	An improved mode of dressing millstones. (Patented by Alfred Vincent Newton.)
WILLIAMS, EDWIN - - -	899	17th March 1868	Improvements in the manufacture and ornamentation of metallic bedsteads and other articles of metallic furniture, a part of which improvements may also be applied to the ornamentation of metallic tubes and other metallic articles.
WILLIAMS, GEORGE JAMES -	350	1st Feb. 1868	Improvements in the manufacture of metallic tubes and in machinery used in the manufacture of metallic tubes.
WILLIAMS, GEORGE JAMES -	1131	3rd April 1868	Manufacture of ornamental metallic tubes.
WILLIAMS, JOHN RANDLE -	1730	26th May 1868	Machinery for printing and numbering sheets or rolls of paper.
WILLIAMS, THOMAS EVAN -	1901	10th June 1868	Pots employed in the manufacture of tin and other plates.
WILLIAMS, WILLIAM - -	1133	3rd April 1868	Manufacture of tin and terne plates.
WILLIAMS, WILLIAM HENRY -	2944	25th Sept. 1868	Certain improvements in the manufacture of gas-burners.
WILLIAMS, WILLIAM LAW- [RENCE.	2854	26th Aug. 1868	An improved motive-power engine.
WILLIAMSON, HENRY - -	3805	15th Dec. 1868	Manufacture of felt and other hats.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WILLIAMSON, JAMES - -	136	15th Jan. 1868	Bolting or fastening one part of a ship or vessel to another.
WILLIAMSON, JOHN STONE- [HOUSE.	466	11th Feb. 1868	Drying machinery useful for drying corn and other vegetable substances.
WILLIS, HENRY - - -	812	9th March 1868	Construction of organs.
WILLIS, JOHN NATHANIEL, [the younger.	2202	13th July 1868	A new syringe to be used or applied in combination with combs, brushes and other similar articles.
WILLISTON, SAMUEL - -	3260	24th Oct. 1868	Steam pumps. (Patented by Henry Edward Newton.)
WILLS, JOHN PHILP - -	1963	17th June 1868	Means and apparatus for mowing or reaping grass or grain crops.
WILLS, THOMAS FRANCIS -	1963	17th June 1868	Means and apparatus for mowing or reaping grass or grain crops.
WILSON, ANTHONY - -	3298	28th Oct. 1868	Metallic moulds for casting metals.
WILSON, CHARLES - - -	2437	3rd Aug. 1868	Apparatus for reefing and furling fore and aft sails.
WILSON, DAVID - - -	3179	17th Oct. 1868	An improved drag or brake for the wheels of vehicles.
WILSON, EDWARD BROWN -	2040	24th June 1868	Furnaces.
WILSON, FREDERIC WARNER -	980	23rd March 1868	Breech-loading fire-arms and cartridges.
WILSON, GEORGE - - -	2427	1st Aug. 1868	Ships' logs.
WILSON, GEORGE, senr. - -	3426	11th Nov. 1868	Improvements in kilns for burning bricks, cement, pottery and earthenware and other articles or substances, parts of which improvements are applicable to furnaces generally.
WILSON, GEORGE HENRY -	2074	27th June 1868	Cases or apparatus for holding and winding tape measures or other bands.
WILSON, GEORGE HENRY -	2086	29th June 1868	Watches and other timekeepers.
WILSON, GEORGE HENRY -	3491	17th Nov. 1868	Apparatus for securing or fastening window-sashes.
WILSON, GEORGE ROBERT -	3196	19th Oct. 1868	Improvements in the carriages for ordnance, and in devices for operating the same and checking the recoil thereof. (Patented by William Fitch.)
WILSON, GEORGE ROWE -	2150	7th July 1868	Stereotype plates.
WILSON, HENRY - - -	704	2nd March 1868	Meters, valves and cocks for measuring, regulating and discharging liquids, gases or fluids.
WILSON, HENRY - - -	2866	17th Sept. 1868	Improvements in engines worked by hydraulic fluid or steam power, and in mechanism or apparatus used in regulating the supply of water or other fluids, the same being applicable amongst other uses to waterclosets, lavers and gas pipes, for the prevention of waste of water, gas or other fluids.
WILSON, JACOB WILLIAM -	1570	14th May 1868	Improved spring stuffing.
WILSON, JAMES - - -	2518	12th Aug. 1868	Outside blinds or sun shades for windows.
WILSON, JAMES - - -	2790	9th Sept. 1868	An improvement in pumps. (Patented by Alfred Vincent Newton.)
WILSON, JAMES BUCK - -	423	8th Feb. 1863	Improvements in compressing, forging and rolling steel and other metals, and in machinery for such purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WILSON, JOHN, jun'. - -	3426	11th Nov. 1868	Improvements in kilns for burning bricks, cement, pottery and earthenware and other articles or substances, parts of which improvements are applicable to furnaces generally.
WILSON, JOHN CHARLES - -	1208	11th April 1868	Hydraulic packing presses.
WILSON, JOHN HAYS - -	3411	10th Nov. 1868	Improvements applicable to waterclosets in ships and vessels.
WILSON, JOSEPH SPOOR - -	1879	9th June 1868	A new mode of imparting rotatory motion to mills employed for grinding grain, coffee and other berries, and vegetable substances of a similar character.
WILSON, JOSEPH WILLIAM - -	3927	23rd Dec. 1868	Construction of hydraulic lifts for raising floating bodies.
WILSON, MARIA ALICE - -	361	3rd Feb. 1868	Spring and other mattresses, couches and cushions.
WILSON, NEWTON - - -	2931	24th Sept. 1868	Manufacture of carburetted hydrogen or luminous gas.
WILSON, NEWTON - - -	3394	9th Nov. 1868	Sewing-machines.
WILSON, RILEY PORTER - -	319	29th Jan. 1868	Furnaces or ovens for roasting ores. (Patented by William Robert Lake.)
WILSON, ROBERT - - -	306	29th Jan. 1868	Method of or means for forming connections or joints to pipes and other articles for conveying fluids and liquids.
WILSON, ROBERT - - -	3270	26th Oct. 1868	New (or improved) apparatus for indicating a rise or fall of temperature for fire alarm and other purposes.
WILSON, ROBERT - - -	3879	21st Dec. 1868	Certain improvements in machinery or tools for cutting metals and other materials, part of which is applicable to hydraulic and other machines.
WILSON, THOMAS - - -	2744	5th Sept. 1868	Breech-loading fire-arms.
WILSON, THOMAS - - -	3816	15th Dec. 1868	Couplings for connecting tubes for signalling on railway trains and for other purposes.
WILSON, WILLIAM - - -	587	21st Feb. 1868	Apparatus for lubricating the sliding valves and pistons of steam-engines. (Communicated by Frederick Schenwecker.)
WIMBRIDGE, EDWARD - -	3255	24th Oct. 1868	Preparing or manufacturing blocks for surface printing.
WINBY, CLIFFORD ETCHES - -	3410	10th Nov. 1868	Means and mode of signalling on railways, for the purpose of preventing collisions between trains, more particularly trains following each other.
WINBY, FREDERICK CHARLES	3410	10th Nov. 1868	Means and mode of signalling on railways, for the purpose of preventing collisions between trains, more particularly trains following each other.
WINCHESTER, OLIVER FISHER	2009	22nd June 1868	Metallic cartridges. (Patented by Edward Thomas Hughes.)
WINDER, RICHARD - - -	89	9th Jan. 1868	A new folding machine for folding sheep, and in making temporary enclosures in place of hurdles, nettings and other plans.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WINDER, RICHARD - -	3085	8th Oct. 1868	A new machine for boring holes to fix the hop poles in, and for drawing the hop poles out of the ground in the hop picking season.
WINDER, THOMAS - - -	2055	26th June 1868	Marine chain stoppers.
WINDHAUSEN, CARL - -	1704	23rd May 1868	Chimney cowls.
WING, GEORGE BLISS - -	3836	17th Dec. 1868	An improved process of restoring or renewing worn out files.
WINKLE, ABRAHAM VAN -	353	1st Feb. 1868	Improved apparatus for manufacturing and storing aerated waters, and for transferring these and other liquids from one vessel to another. (Partly communicated by Gustavus Davies Dows.)
WINSBORROW, JOHN - -	2512	12th Aug. 1868	Improvements in apparatus for measuring water and other liquids, which improvements are also applicable in obtaining motive-power.
WINSER, FRANKLIN - -	835	11th March 1868	Utilization of the waste products arising from esparto grass and other fibrous materials used in the manufacture of paper and other purposes.
WINSER, FRANKLIN - -	836	11th March 1868	Manufacture of sulphate of magnesia.
WINSER, FRANKLIN - -	2373	29th July 1868	Manufacture of sulphate of magnesia or epsom salts from dolomite or magnesium limestone.
WINSLOW, JOSEPH WINSLOW	3260	24th Oct. 1868	Steam pumps. (Patented by Henry Edward Newton.)
WINSLOW, KENELM JOHN -	258	25th Jan. 1868	An improved method of conveying rotatory motion to axles.
WINSLOW, KENELM JOHN -	3229	22nd Oct. 1868	An improved method of conveying rotary motion to axles.
WINTER, JAMES, the younger -	171	17th Jan. 1868	Improved apparatus for filling glass bottles and jars with soups, jellies and fruits, for the purpose of preserving them, the said apparatus being also applicable for filling bottles with sauces, wines, spirits, beers, liqueurs and other still and effervescing beverages, also machinery in combination with the above apparatus for corking or stoppering such said bottles and jars.
WINTER, WILLIAM - - -	2272	20th July 1868	Sewing-machines.
WINTER, WILLIAM - - -	3969	30th Dec. 1868	Sewing-machines.
WINTOUR, THOMAS FITZ [GERALD.]	2240	16th July 1868	Apparatus for ventilating, principally intended to be used for ventilating rooms or apartments in houses or other buildings.
WIRTH, FRANCIS - - -	272	25th Jan. 1868	An improved apparatus for heating, evaporating and decomposing water, oil and other substances. (Communicated by Peter Corfitz Moller and Ferdinand Walter.)
WIRTH, FRANCIS - - -	658	27th Feb. 1868	Pedals and damping apparatus for piano-fortes. (Communicated by Edward Zacharial.)
WIRTH, FRANCIS - - -	1080	30th March 1868	An improved mode of and apparatus for stopping or retarding the progress of railway trains. (Communicated by George Krauss.)



Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WIRTH, FRANCIS - - -	1703	23rd May 1868	An improved apparatus for causing the circulation of water in steam-boilers. (Communicated by William Fischer and Theodor Stiehl.)
WIRTH, FRANCIS - - -	1741	26th May 1868	An improved regulator or governor for steam and other engines. (Communicated by Joseph Theodor Lossen.)
WISE, FRANCIS - - -	1408	30th April 1868	Apparatus for effecting the separation or removal of foreign matters or impurities from water.
WISE, WILLIAM LLOYD - -	2911	22nd Sept. 1868	An improved axle-box for railway-carriage and other similar axles. (Communicated by Wilhelm Basson and Ferdinand Lüdecke.)
WISEDILL, GEORGE VALEN- [TINE.	503	14th Feb. 1868	A new or improved ring for keys and other useful purposes.
WISHART, FREDERICK AU- [GUSTUS.	1772	29th May 1868	Means or apparatus for shearing or cutting the hair of horses and other animals.
WISSOCQ, PAUL EMILE DE -	3400	9th Nov. 1868	Treating lead ores.
WITTRAM, FREDERICK - -	1928	12th June 1868	An improved anchor. (Patented by William Robert Lake.)
WOINAR, ROBERT - - -	1834	4th June 1868	Central fire cartridges for breech-loading fire-arms.
WOLLASTON, ALFRED [BUCHANAN.	1010	25th March 1868	Improvements in the treatment of mixed fabrics and in the separation of wool from cotton and other substances contained therein.
WOLLHEIM, LEONHARD - -	529	18th Feb. 1868	Apparatus for barometrical and thermometrical purposes.
WOLMERSHAUSEN GEORGE [MICHAEL.	3919	23rd Dec. 1868	An apparatus adjustable to the form of the human figure, for the purposes of measuring.
WOLSTENHOLME, JOHN - -	2385	30th July 1868	Valves of steam-engines for pumping and other purposes.
WOMERSLEY, CHARLES - -	900	17th March 1868	An improved lubricator.
WOOD, EDWARD - - -	2779	9th Sept. 1868	Certain improvements in steam-engines.
WOOD, GEORGE WASHINGTON	592	22nd Feb. 1868	Machines for supplying type forms in printing presses with various coloured inks for each impression. (Patented by William Robert Lake.)
WOOD, JAMES - - -	148	16th Jan. 1868	Windows.
WOOD, JAMES - - -	3062	7th Oct. 1868	Shuttles.
WOOD, JAMES WILLIAM -	6	1st Jan. 1868	Manufacture of cardings and yarns.
WOOD, JOHN - - -	488	13th Feb. 1868	Improvements in indicating the position of railway points and in the apparatus or means employed therefor.
WOOD, JOSEPH - - -	2747	7th Sept. 1868	"Frog-plates" for the intersections of railroad tracks.
WOOD, RICHARD MASON -	3182	15th Oct. 1868	Manufacture of type cases, work boxes, color boxes, and other articles in which compartments are used.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WOOD, THOMAS - - -	120	14th Jan. 1868	Improvements in the construction of railway carriages and in the method of coupling the same, as also in the method of and apparatus for signalling between passengers, guards and engine drivers of trains, and officials and others at stations and other places.
WOOD, THOMAS - - -	738	4th March 1868	Improved machinery and appliances for preparing, cleaning, screening, decortiating and grinding wheat and other grain, and separating and collecting the several products thereof.
WOOD, THOMAS - - -	1227	14th April 1868	Improvements in manufacturing wheat and other grain into meal and flour, and in machinery and appliances for that purpose.
WOOD, THOMAS - - -	2218	14th July 1868	Improvements in the construction of railway carriages and in the method of coupling the same, as also in the method of and apparatus for signalling between passengers, guards and engine drivers of trains, and officials and others at stations and other places.
WOOD, WILLIAM - - -	6	1st Jan. 1868	Manufacture of cardings and yarns.
WOODCOCK, ALEXANDER -	1213	11th April 1868	An improved mode of and apparatus for suspending pictures.
WOODCOCK, HENRY BROOK -	1091	31st March 1868	A new manufacture of metal for axles, shafts, rails, tyres and other purposes.
WOODCOCK, HENRY BROOK -	2810	12th Sept. 1868	A new manufacture of metal for axles, rails, tyres and other purposes.
WOODCOCK, JAMES - - -	2127	3rd July 1868	Certain improvements in the method of and means for effecting communication between guards, passengers and engine drivers on railways.
WOODCOCK, WILLIAM COCKILL	2899	19th Sept. 1868	An improvement in the construction of bakers' ovens.
WOODFIELD, WILLIAM - -	491	13th Feb. 1868	Papering needles or making up packets of needles for sale.
WOODHOUSE, GEORGE - -	2386	30th July 1868	Construction of mills or manufactories, warehouses and other buildings.
WOODHOUSE, SAMUEL JOSEPH	3109	9th Oct. 1868	Apparatus for regulating the supply of gas to "burners."
WOODLEY, JOHN - - -	196	20th Jan. 1868	Apparatus for communicating or signalling in railway trains.
WOODROFFE, CHARLES - -	256	24th Jan. 1868	Improvements in travelling post offices and tenders, and in apparatus for delivering and receiving mail bags and parcels.
WOODS, ALEXANDER - - -	3776	12th Dec. 1868	Construction of spring mattresses.
WOODS, HAMILTON - - -	2930	24th Sept. 1868	Apparatus for heating water by means of steam.
WOODS, THOMAS - - -	2998	30th Sept. 1868	Improvements in the manufacture of white lead, and in the production of carbonic acid gas for the said manufacture and for other useful purposes. (Patented by John Henry Johnson.)
WOODWARD, BENJAMIN - -	3251	24th Oct. 1868	Power capstans. (Patented by Bristow Hunt.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WOODWARD, HENRY - -	434	8th Feb. 1868	An improved knife cleaner.
WOOLF, ISRAEL EDWARD - -	3716	7th Dec. 1868	Apparatus for cooling milk and other fluids. (Communicated by Charles Gustavus Mueller.)
WOOLFELD, JOHN - - -	1290	21st April 1868	Method of and machinery for corrugating or fluting sheets of metal.
WOOLLAN, ANN - - -	2250	17th July 1868	A new or improved fastener or protector for securing watches, purses and other similar articles, so as to prevent robbery from the person.
WOOLLATT, JOSEPH - -	3001	30th Sept. 1868	Apparatus for obtaining motive-power and for propelling vessels.
WOOLLER, JOSEPH SWITHIN -	2081	29th June 1868	Improvements in apparatus for drying textile fabrics and fibrous substances, applicable also for heating or cooling and evaporating liquids.
WOOLLEY, WILLIAM TOULMAN	468	11th Feb. 1868	Improvements in locks or fastenings for purses, pocket-books, bags and other articles.
WOOTTON, WILLIAM - -	479	12th Feb. 1868	Envelopes.
WORCESTER, FREDERICK -	1949	15th June 1868	Tuyeres for furnaces and forges. (Communicated by John Bayliss.)
WORRALL, GEORGE - - -	3057	7th Oct. 1868	Apparatus used for producing adjustable pressure on rollers used in the manufacture and finishing of textile materials or fabrics.
WORRALL, JAMES - - -	3829	16th Dec. 1868	Improvements in drying stoves and in machinery to be used therewith.
WORRALL, JAMES PRESTON -	520	17th Feb. 1868	Certain improvements in the treatment of fabrics for the purpose of imitating skins of animals.
WORSAM, GEORGE JARVIS -	3463	14th Nov. 1868	A new or improved motive-power engine.
WORSAM, SAMUEL WILLIAM, [junior.	1285	20th April 1868	Machinery or apparatus for planing and cutting wood.
WORSTER, JAMES - - -	3136	13th Oct. 1868	Means or apparatus for holding or supporting stereotype plates whilst taking impressions therefrom.
WORTH, JOHN - - -	1836	4th June 1868	Covering rollers and clearers used in machinery for preparing and spinning fibrous materials.
WORTH, THOMAS - - -	2182	9th July 1868	Railways.
WRAY, LEONARD - - -	2343	25th July 1868	Improved methods of and apparatus for obtaining or separating metals from their ores, matrices, slimes and tailings.
WRAY, LEONARD - - -	3439	12th Nov. 1868	Improved apparatus for crushing and grinding quartz and other hard substances.
WREN, JOHN - - -	2868	17th Sept. 1868	Certain improvements in furnaces applicable to boilers for generating steam or other purposes.
WRIGHT, DAVID PITCAIRN -	1458	5th May 1868	The method of and means or apparatus for pouring, drawing off, measuring and regulating the flow of liquids.
WRIGHT, DAVID PITCAIRN -	1459	5th May 1868	Manufacture of certain descriptions of taps.
WRIGHT, EDWARD - - -	546	19th Feb. 1868	Improvements in self acting means or apparatus applicable to steam-boiler and other furnaces, for the consumption or prevention of smoke.

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## AND APPLICANTS FOR PATENTS OF INVENTION.

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Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WRIGHT, HENRY BENJAMIN -	2938	3rd Feb. 1868	Apparatus for sweeping chimneys.
WRIGHT, JOHN - - -	2944	25th Sept. 1868	Certain improvements in the manufacture of gas-burners.
WRIGHT, JOSIAH - - -	3319	30th Oct. 1868	Improvements in portable printing or embossing presses and in appliances connected therewith.
WRIGHT, LEMUEL WELLMAN -	1918	3rd June 1868	Meters for water and other liquids.
WRIGHT, ROBERT ALFRED -	924	18th March 1868	Mode of and apparatus for cutting and dressing millstones and other stones.
WRIGHT, ROBERT ALFRED -	1201	9th April 1868	Improvements in heating structures and articles, and in the mode of and apparatus for obtaining heat from petroleum and other hydrocarbons, and in apparatus for supplying air to furnaces.
WRIGHT, WILLIAM - -	1397	29th April 1868	Manufacture of iron and steel.
WRIGHT, WILLIAM LECKIE [GRAHAM.	1999	20th June 1868	Improvements in the propelling of ships or vessels and in the machinery or apparatus employed therefor.
WRIGHT, WILLIAM LECKIE [GRAHAM.	2185	10th July 1868	Improvements in rotatory engines and pumps, applicable to meters for measuring fluids.
WRIGLEY, THOMAS - -	2331	24th July 1868	Looms for weaving.
WRIGLEY, THOMAS - -	2613	22nd Aug. 1868	Certain improvements in looms for weaving.
WRIGLEY, THOMAS - -	2659	27th Aug. 1868	Certain improvements in furnaces applicable to boilers for generating steam or other purposes.
WRIGLEY, THOMAS - -	3186	19th Oct. 1868	Certain improvements in "beaming warps" and in the mechanism connected therewith.
WRIGLEY, THOMAS - -	3187	19th Oct. 1868	Certain improvements in looms for weaving.
WYLLIE, ANDREW - -	3625	28th Nov. 1868	An improved machine for cracking palm and other nuts.

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YATES, WALTER EDWARD -	2331	24th July 1868	Looms for weaving.
YATES, WALTER EDWARD -	3186	19th Oct. 1868	Certain improvements in "beaming warps" and in the mechanism connected therewith.
YATES, WILLIAM - - -	1939	13th June 1868	Furnaces to be used in metallurgic operations.
YATES, WILLIAM - - -	3137	13th Oct. 1868	Furnaces and tools to be used in metallurgic operations.
YON, LOUIS GABRIEL - -	3380	6th Nov. 1868	Manufacture of ropes, cordage, lines and twines. (Patented by Alexander Melville Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
YORATH, HENRY - - -	3951	28th Dec. 1868	Apparatus for elevating corn, hay and other crops on to stacks.
YORK, HENRY KINNAIRD -	2540	13th Aug. 1868	Improvements in treating cast iron and other metals, and in apparatus employed therein.
YOUNG, EDWARD WILLIAM -	548	19th Feb. 1868	Construction of bridges.
YOUNG, JAMES - - -	1868	6th June 1868	Treating hydrocarbons.
YOUNG, JAMES WILLIAM -	297	28th Jan. 1868	Improvements in refining or purifying oils and in the apparatus employed therein.
YOUNG, JOHN - - -	163	17th Jan. 1868	Improvements in washing and in the apparatus or means employed therefor.
YOUNG, JOHN - - -	1481	6th May 1868	Certain improvements in the construction of ovens to be employed in the manufacture of fuel, termed "coke," oil and gas.
YOUNG, JOHN - - -	2336	25th July 1868	Arrangements or apparatus for preventing smoke in connection with boiler furnaces.
YOUNG, ROBERT - - -	475	12th Feb. 1868	Apparatus for training, levelling and dressing millstones.
YOUNG, ROBERT - - -	2330	24th July 1868	Improvements in dressing millstones and in apparatus therefor.
YOUNG, WILLIAM DENOON -	110	11th Jan. 1868	Wedging and fastening fences and other similar structures.
YOUNG, WILLIAM DENOON -	3288	27th Oct. 1868	Making tiles or plates of iron, zinc or other metal sheets, to be used for roofing and for iron houses and other structures.
YULE, JOHN - - -	2666	28th Aug. 1868	Arrangements and apparatus for dealing with sewage.
YVERNAULT, ARTHUR - -	287	28th Jan. 1868	A new mode of preserving eggs and improved apparatus connected therewith. (Patented by Henri Adrien Bonneville.)

## Z.

ZACHARIAL, EDWARD - -	653	27th Feb. 1868	Pedals and damping apparatus for piano-fortes. (Patented by Francis Wirth.)
ZAHN, EDWARD - - -	627	25th Feb. 1868	Muffs.
ZANNI, GEMINIANO - -	3283	27th Oct. 1868	Electro-magnetic telegraph printing instruments.
ZEISE, THEODOR - - -	1169	7th April 1868	An improved boat-detaching apparatus. (Patented by Edwin Henry Newby.)
ZINSSMANN, EMIL - - -	496	14th Feb. 1868	Certain improvements in compound of aniline colours. (Patented by Henri Adrien Bonneville.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ZOEFFEL, ERNEST - - -	2655	26th Aug. 1868	Means for rendering certain portions of windows, and doors or doorways, air and water tight.
ZORÈS, CHARLES FERDINAND	1159	6th April 1868	Permanent way of railways. (Patented by Charles Desnos.)
ZOX, HENRY - - - -	724	3rd March 1868	Manufacture of hats and caps and other coverings for the head.
ZOX, HENRY - - - -	2462	6th Aug. 1868	Manufacture of hats and caps and other coverings for the head.
ZWEIFEL, PIERRE BLUMER -	2725	4th Sept. 1868	Preparation of a blue color from aniline. (Patented by John Henry Johnson.)
ZWEZ, RUDOLF - - -	698	29th Feb. 1868	A new or improved can for containing petroleum, paraffin, hydrocarbons and such like oils or spirits, and other liquids.
ZYSEL, FRANCIS - - -	3088	8th Oct. 1868	Expanding or extending frames for furniture and other articles.

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	New Brunswick.
	Newfoundland.

New South Wales.	Victoria—Patent Office, Melbourne.
New Zealand.	Parliamentary Library, Melbourne.
Nova Scotia.	Public Library, Melbourne.
Prince Edward Island.	
South Australia—Colonial Institute, Adelaide.	
Tasmania.	
Trinidad.	

*Foreign States.*

Argentine Republic—Buenos Ayres.  
 Austria—Handels Ministerium, Vienna.  
 Bavaria—Königliche Bibliothek, Munich.  
 Belgium—Ministère de l'Intérieur, Brussels.  
 Musée de l'Industrie, Brussels.  
 France—Bibliothèque Impériale, Conservatoire des Arts et Métiers, Hôtel de Ville, Société Industrielle de Mulhouse. } Paris.  
 Gotha—Ducal Friedenstein Collection.  
 Italy—Ufficio delle Privative, Florence.  
 Netherlands—Ministère de l'Intérieur, The Hague.  
 Prussia—Gewerbe-Akademie, Berlin.  
 Königliche Bibliothek, Berlin.  
 Ministerium des Innern, Hanover.  
 Russia—Bibliothèque Impériale, St. Petersburg.  
 Saxony—Polytechnische Schule, Dresden.  
 Spain—Madrid.  
 Sweden—Teknologiska Institutet, Stockholm.  
 United States—Patent Office, Washington.  
 Astor Library, New York.  
 State Library, Albany.  
 Franklin Institute, Philadelphia.  
 Free Library, Boston.  
 Philadelphia Library Company.  
 Young Men's Association Library, Chicago.  
 Peabody Institute, Baltimore.  
 Historical Society, Madison, Wisconsin.  
 Cornell University, Ithaca, N.Y.  
 Wurtemberg—Bibliothek des Musterlagers, Stuttgart.

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Wednesdays, Thursdays, and Fridays, from 10 A.M. till 4, 5, or 6 P.M., according to the season.

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**GALLERY OF PORTRAITS OF INVENTORS, DISCOVERERS, AND INTRODUCERS OF USEFUL ARTS.**—This Collection, formed by Mr. Woodcroft, and first opened to public view in 1853, is now exhibited in the Patent Office.

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